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ABSTRACT

This study is intended to provide for the Ministry of Education and the Ministry of Colleges and Universities information, conclusions, and recommendations which bear on key questions, issues, and directions relevant to teacher supply and demand in Ontario from the present to the turn of the century and beyond. Analysis is also provided of school board and system-wide provincial data. Data are presented based on analyses of returns from surveys, interviews, and other information gathering. Teacher supply and demand projections are investigated using both quantitative and qualitative data gathering techniques. Total population surveys have been conducted of Ontario school boards and teacher education institutions, as well as a micro-study of a single board's complete set of teaching applicants to a large south-central Ontario school board. Trends in teacher demand are considered in terms of a cyclical model, the basic structure of which is generational. It is noted that an approximately 20-year period of teacher shortage, from the late 1940s to the late 1960s, was followed by a period of about equal duration in which there has been a teacher surplus, from the late 1960s to the late 1980s. Copies of the survey instruments are appended. (JD)

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PERSPECTIVES ON TEACHER SUPPLY AND DEMAND IN ONTARIO, 1988-2008

LAVERNE SMITH

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Perspectives on Teacher Supply and Demand in Ontario 1988-2008

October, 1988

Principal Investigator: Laverne Smith

I. Introduction

A. Overview of the Study

This study is intended to provide for the Ministry of Education and the Ministry of Colleges and Universities information, conclusions and recommendations which bear on key questions, issues and directions relevant to teacher supply and demand in Ontario from the present to the turn of the century, and beyond.

Analysis is also provided of school board and system-wide provincial data. This report, which appears to be a first of its kind in Canada, presents data based on analyses of returns from surveys, interviews and other information gathering. In addition, it reflects consultation with other relevant organizations and comments received in response to the "Interim Report: Perspectives on Teacher Supply and Demand", which was submitted in July, 1988.

The study has been designed to investigate teacher supply and demand projections using both quantitative and qualitative data gathering techniques. Total population surveys have been conducted of Ontario school boards and teacher education institutions, as well as a micro-study of a single board's complete set of teaching position applications to determine the nature of the pool of applicants to a large south-central Ontario school board. Two supplementary surveys were done to gauge the present employment status of 1988 teacher education graduates and to obtain an update on the current staffing situation within boards as of September 30, 1988. Sources of data bearing on teacher projection studies have been examined to assist in the development of a plan for ongoing projection studies. Further, extensive discussions have been held with many officials in school boards and in teacher education institutions from various regions of the province,

as well as officials of the Ministry of Education and Ministry of Colleges and Universities, teacher federations and the Teachers' Superannuation Commission to elicit both sources of data and perceptions of trends in local areas and in general.

School board survey returns have been received which include boards representing about 70 per cent of the total teacher population in publicly funded schools and all teacher education institutions in Ontario. These returns, together with the extensive interviews with key board respondents, and discussions with individual representatives of other relevant organizations have been important in providing a textured picture of the current and probable future supply and demand outlook for teachers in Ontario.

The Principal Investigator wishes to acknowledge with sincere appreciation the cooperation and assistance of many board officials across the province in the design of the survey, in their willingness to provide time for in-depth interviews and completion of the surveys, and for the advantage of their wisdom and insights in tackling such a complex field as teacher supply and demand. The teacher education institutions deserve much credit for both the quantity and quality of information which they provided in an open and collegial manner. As well, appreciation is offered to government, teacher federation, and other education officials, and specifically to Robert Sheridan of the Ministry of Colleges and Universities, Michael Laing, Maria Svoboda and Sherron Hibbitt of the Ministry of Education and William Foster of the Ontario Teachers' Superannuation Commission. Finally, three colleagues at York University have earned special mention: Sheldon Levy who provided excellent suggestions on the design of the survey instruments, and Andrew Effrat and Frank McIntyre who provided invaluable assistance and advice on research directions and findings throughout.

B. Research Methodology

Appendices A and B are the instruments used to conduct the total population surveys of Ontario school boards and teacher education institutions. The former was designed through a process which involved discussions with a sample of informed board and university officials to determine the nature and extent of information which would bear on teacher supply and demand projections. It was then field tested with three boards with

a focus on clarity and adequacy of the survey questions. The instrument used for the teacher education survey was developed in a parallel way with the assistance of informed university and teacher education faculty and officials.

Interviews and discussions were also conducted with a broad sample of officials informed about teacher personnel matters. This sample was selected to include representatives of boards in various regions of the province, Roman Catholic separate and public boards, and a mix of mainly urban and mainly rural boards.

The "lost generation of teachers" micro-study involved gathering from teacher personnel files in a single south-central Ontario board the information on the data sheet included as Appendix C. Data were collected for the total population of approximately 1,000 applicants to approximately 200 positions in all teaching fields and levels which were advertised in a national newspaper to begin in the fall of 1988.

Finally, Appendices D and E were developed to gauge the present employment status of the spring 1988 teacher education graduates and to gain an understanding of the staffing situation within the boards of education as of the end of September 1988. Appendix D was sent to those boards which responded to the initial survey (Appendix A), and Appendix E was distributed to approximately 70 per cent of all recent teacher education graduates in the various geographic regions across Ontario.

C. Record Keeping

One central finding is that, for the most part, board teacher personnel records are not established in such a way as to readily provide reports to answer the array of questions that bear on the issue of teacher supply and demand. In interviews, many officials indicated that they considered the types of information requested through the survey to be valid and desirable from a planning perspective, both in general for the province and also for board internal planning purposes. However, most boards reported that manual retrieval from individual hard copy teacher personnel records is necessary to respond to the questions. Indeed, a significant number of boards indicated that their personnel records are not yet computerized.

This situation has resulted in it being difficult for many boards to respond in a timely and comprehensive manner. A number of returns were incomplete with respect to some of the items. Some were able to respond only to a key subset of questions owing to limitations in the nature of teacher personnel information systems at the board level which made thorough responses to the survey a highly labour intensive exercise for them. This experience is quite helpful in informing the plan for on-going data gathering in future.

D. Rate of Return

The following summarizes the board survey returns:

Table 1
Rate of Return from School Boards

	No. of boards with 100+ teachers	No. of Returns	% of Provincial Enrolment Represented
Public	56	39	74%
Separate	33	20	66%
Total	89	59	72%

In addition, returns were received from 26 of the smaller boards. Altogether, the returns constitute boards representing over 70 per cent of the total teacher population in publicly funded schools in Ontario.

II. A Framework for Considering Supply and Demand

A. A Generational Model of Teacher Supply and Demand

The history of teacher demand in Ontario and beyond over the past 40 years is such that it is useful for the foreseeable future to consider trends in terms of a cyclical model, the basic structure of which is generational. In summary, it is noted that an approximately 20-year period of teacher shortage, from the late forties to the late sixties, was followed by a period of about equal duration in which there has been a teacher surplus, from the late sixties to the late eighties.

The post-World War II demographic event of a major baby boom, coupled with an array of other factors, drove elementary and secondary school enrolments up dramatically. These trends included migration to urban centres (including migration to Ontario from other Canadian provinces and territories), a strong emphasis on schooling which increased participation rates at the upper elementary and secondary levels, and a new wave of immigration to Canada, much of which was focused on Ontario. An explosive expansion of teacher demand at all levels of elementary and secondary schooling resulted. As the major source of supply to the expanding teaching force was young adults new to the teaching profession, the age profile of the teaching force rapidly shifted downward.

The underlying baby boom receded through the 1960's slowing the growth of school enrolment. Eventually, in the late sixties and early seventies, this demographic trend resulted in a wave of enrolment decline which reduced the total number of teaching positions in Ontario. Meanwhile, teacher education institutions were at the apex of their pre-service enrolments. The unusual age distribution of the Ontario teaching force exacerbated this quickly emerging glut in the teaching market in that, relative to the total system size, the number of teachers approaching retirement was quite small. Those large numbers of teachers hired in the previous twenty years were in mid-career, with retirement for most a distant event.

Thus, Ontario is now emerging from two decades (the late sixties to late eighties) that are noteworthy for the large numbers of teacher graduates who were unable to find teaching positions. Following the recommendation of the 1970's Commission on

Declining Enrolments, teacher education institutions quickly but somewhat belatedly reduced their enrolment intake to less than one-third of what it had been at the end of the expansionary period.

The expansion of the post-war period was unique in the conjuncture of many factors, each contributing to the increase in school enrolment and growth in the teaching force. If one considers a teacher's professional career span to be about 35 years in length, the massive nature of the new hirings between the late forties and late sixties is likely to require at least two generations to lose its full force. Just as this tidal wave brought very few position openings from retirements or withdrawals from the profession through the seventies and eighties (most teachers were in the early to mid-stages of their careers), it is now pushing ever increasing numbers of teachers toward retirement.

This generational effect has been and remains for the time being one of the main factors, if not the major one, in determining the number of teaching positions available in Ontario. This trend of accelerating retirement rates can be expected to continue through to the early years of the twenty-first century before it begins to recede once more.

The after-effect of the post-war baby boom, a less dramatic ripple of birth rate increases, is beginning to have its impact on the elementary grades. Although members of the baby boom generation in their maturity are less prolific -- having fewer children than their parents and beginning their own parenthood at a later age -- they have reversed the school population decline of the seventies and eighties in Ontario.

This basic generational cycle is the model through which teacher supply and demand in Ontario must be considered. The population/teaching force age structure model is, of course, complicated by a wide array of other factors which are addressed below. The data in Table 2, reflecting only a small sample of four large boards, dramatically illustrate the effect on some individual boards over the next decade and a half.

Table 2
Annual Number of Teachers Eligible for Retirement by Selected Years

	1988	1991	1994	1997	2000	2003
Board A (elementary only)	95	212	414	621	n.a.	n.a.
Board B	37	95	151	171	n.a.	n.a.
Board C	63	140	157	201	244	327
Board D	70	72	90	159	186	207

It should be noted in considering the above data that these potential staffing requirements would arise from retirements alone. Needs arising from other withdrawals, enrolment growth, program changes or extensions, and from improvements in teacher/pupil ratios will add significantly to these new teacher requirements.

B. Other Factors Beyond Age Structure of Teaching Force

As anticipated, school boards are reporting a number of factors which have direct or indirect effects on the demand for new teachers. Just as the unique explosion in the forties to sixties was determined by the interaction of a number of factors, its echo and the demand for teachers toward the end of the century is a complex result of many trends and forces.

First and foremost, it is essential that teacher demand and supply over the coming decades be understood not only in aggregate for the province, but also in a textured fashion with regional, intra-regional, division, public/separate, language of instruction, and subject differentiations. Amongst the factors which this study was designed to elicit, and which are central to developing satisfactorily sophisticated projections, are those identified below.

1. Division and Grade Level

With participation and retention levels relatively stable at this stage of maturity of the Ontario school system, the major factor differentiating among divisions and grade levels *per se* is the population trend. At the present stage of the growth in birth rates in the province, Ontario schools are experiencing overall growth in early elementary enrolment simultaneously with a relatively stable population in overall secondary enrolment. This trend will likely continue for the next several years until the birthrate trend reversal of the early to mid-eighties begins to affect the secondary schools.

2. Regional and Intra-regional Variations

Economic and other factors affecting migration and immigrant settlement patterns are continuing to have a major impact on differentiated teacher demand across the province. With the economic strength of the Metropolitan Toronto region relative to other regions of the province, there is major population growth occurring around Metropolitan Toronto which is inflating the demand for new elementary and secondary teachers quite markedly in some boards, while other regions (such as one southwestern Ontario urban board which reports a continuing 1 per cent to 2 per cent decline at the elementary level along with a 5 per cent to 6 per cent decline at the secondary level) are projecting continued declines for the foreseeable future. Others forecast a stable enrolment projection over at least the medium term.

It should be noted, however, that stable or declining enrolments do not necessarily signal a lack of need for new teachers. For example, one large, established board with an older teaching staff where enrolment is stable at the elementary level and declining at the secondary level is actually hiring briskly at both levels. The new hirings are the result of many factors such as policy and program changes (essentially affecting the elementary level), losses and resignations, but are mainly to replace the large number of retirees from both levels.

This differentiated regional pattern is further complicated by local housing markets and other factors which will likely continue to focus the major weight of the Metropolitan Toronto region growth primarily in the boards beyond the Metro boundaries proper.

Striking differences are also apparent even between boards of a roughly similar size

within the same area. The age profiles for their teaching staff can vary dramatically for a variety of reasons related to how and when they developed. One example which illustrates the stark contrast that can exist is the following comparison table between two large, urban boards, each with a teaching staff of more than 2,500.

Table 3
Intra-Regional Comparison of Staffing and Retirement Patterns for Two Large, Urban Boards

	Approximate Number of New Teachers Hired in 1987	Approximate Number of Actual Retirees in 1987	Approximate Number of Eligible Retirees in 1997	Approximate Percentage of Teaching Force Added Since June, 1984
Board A	180	150	630 (excludes I/S)	10%
Board B	400	7	30	50%

In the case of board A, most new hirings are occurring as a result of retirements, but in the case of board B new hirings are mainly as a result of rapid population increase and teacher losses for all reasons other than retirement. As one official of board B put it, "Not only are we growing wildly but we are leaking badly". In boards with a younger age profile, such as board B, heavier losses or "leakage" appeared to be occurring for a variety of reasons related to family commitments (e.g., a much larger number of women of child-bearing age), greater opportunity for mobility to other boards for promotion and so on.

Two other major differences for boards such as board B in comparison with more stable boards are the amount and extent of recruiting that must be done and the effort, organization, and strain that is involved in incorporating hundreds of new teachers into their organizations each year. Several high growth boards spoke of recruiting in

provinces across Canada this fall, one with a view to hiring immediately for full-time supply work (and next year for regular positions) anyone who would join them. Another board plans to recruit in Great Britain as well.

3. Variations between Separate and Public Boards

Bill 30, which provided for the extension of funding to separate schools, is further differentiating at the secondary level the trends in teacher positions amongst boards which share a geographic region and otherwise are similarly affected by local trends. This temporary phenomenon is adding greater contrast for some boards in the elementary growth/secondary decline pattern. However, a number of boards have indicated that Bill 30 has had little or no impact on their operations. Finally, most boards indicate that they do not expect further significant changes as a result of the full implementation of this legislation.

4. Policy Change Effects

An array of provincial and local board policy and program changes beyond Bill 30 also have major effects on teacher demand. Amongst those which boards have noted as having significant short-term impact on teacher positions are the introduction and extension of Junior and Senior Kindergarten programs, the improved teacher/pupil ratios in Grades 1 and 2, and elementary teacher preparation time. These changes further emphasize that the growing demand for teachers, at least for the medium term, will be focused most heavily on the elementary grades.

The main effects of the implementation of the OS:IS document *(Ontario Schools, Intermediate and Senior Divisions)* noted in board reports were the need for more English teachers and a greater call by secondary school principals for "specialists" to teach the OAC's, especially in English. A number of boards also reported lower numbers of students taking technical and business options. The effect and number of "fast-tracking" of OAC students still seem to be unknown. One large urban board noted with surprise that 72 per cent of its Grade 12 students with 30 credits indicated that they

would stay on during the following year. The board, of course, plans to study the situation carefully to try to ascertain the percentage of students actually continuing.

Over the past few years in Ontario and throughout North America, one of the major changes in teacher education that has been proposed, and in some jurisdictions implemented, is the concept of an induction period for new teachers. Some versions of this concept entail release time for both the new teachers and their mentors, and this release time could lead to an increased need for additional new teachers. (For example, 20 per cent release time for 5,000 new teachers per year would increase the total teaching force by 1,000, excluding consideration of the time of the mentor teachers.)

5. Language of Instruction

a. French as a First Language and French as a Second Language

Survey responses and informal board input underscore the high demand for teachers of French, most particularly for the rapidly growing French immersion programs in the English-language school boards in urban areas.

It is quite apparent that the single most urgent and critical area of demand for new teachers at this time exists in French programs. Boards across Ontario are clearly expressing a need for more and better qualified teachers at all levels but particularly for the primary and junior divisions. Most boards report the use of some unqualified teachers on Letters of Permission who normally hold basic teacher certificates, but may not hold a required Ontario Ministry Additional Qualification such as French as a Second Language, Part 1 or may not be qualified in the division of employment (e.g., a teacher with secondary school background teaching in the primary division). Indeed, in the fall 1988 board staffing update (Appendix D), French was by far the most frequently identified area for which unqualified teachers had been hired.

It was not uncommon in urban boards with heavy growth in immersion programs to find that 20 to 30 per cent of all elementary hirings done in the past year were for teaching in French. For example, one board hired 120 teachers for the elementary level with 42 of them for French programs. Exacerbating the strong need in this area appears to be

the high turnover of French teachers which was reported by many boards as an additional cause of pressure. One board reported that half of all its losses (departures for all reasons other than retirement) was in the area of French. Reasons offered most frequently included such factors as resignation for family reasons, to take a position or promotion with another board, or to return to province of origin. Not only does there appear to be competition for French teachers amongst boards in Ontario, but also between Ontario and other provinces.

A major source of French teachers for Ontario would appear to be teachers from other Canadian provinces who have migrated for job opportunities or who have been recruited. Many boards report that they are actively recruiting outside of Ontario with particular targetting of provinces such as Quebec and New Brunswick which have large francophone populations. However, Ontario is not alone in its search for French teachers. Other provinces such as British Columbia, which is reported to have an increase of about 5,000 students in French immersion classes over the past year, are also actively recruiting.

b. English as a Second Language

Recently, there has been a large influx of immigrants and refugees to Canada which represents a great increase in the overall numbers of English as a Second Language students. About one-half of all those coming to Canada settle in Ontario with about one-quarter in the Metropolitan Toronto area. Many boards report a sudden, drastically increased need for teachers of English as a Second Language as a result of this change in population. Complicating this situation and adding further to the demand for teachers in this area are the growing number of students born in Canada who speak little or no English. It is quite common to find children growing up in large, established ethnic communities with a first language other than English. For example, in one Metropolitan Toronto Kindergarten class of 15 students, 11 are learning to speak English but all were born in Canada. One board estimates that by the year 2000 about 70 per cent of its students will have a first language other than English.

While the required Ontario Ministry Additional Qualification English as a Second Language, Part 1 is obtained after teachers have completed basic qualifications, the

demand for new teachers is still increased by the creation of ESL positions which are often resource roles beyond the classroom or are in classrooms with greatly reduced ratios.

6. Other Subject Specific Trends

Respondents in some boards are highlighting a number of secondary level teaching subjects in which they are presently having difficulty hiring qualified teachers and in which they anticipate serious shortages in the near future. Most prominent among these are mathematics, sciences (especially chemistry and physics) and technological studies. Several other areas are also being mentioned but in a much less urgent and consistent way. However, it is anticipated that, given appropriate board level incentives, some of these specific needs could potentially be remedied through a combination of in-service Additional Qualifications courses and boards shifting current teacher responsibilities where there is sufficient academic background to support such a transfer. This could be especially helpful in those boards where less growth is expected at the secondary level. While these shortages do not necessarily in themselves signal a need for major increases in recruitment to teacher education pre-service programs in these specific fields, there should, nevertheless, be a concerted effort by the government and teacher education institutions to ensure that a sufficient number of both female and male candidates are recruited into these important high demand areas.

III. The Demand for Teachers

A. Global Projection Considerations

With the foregoing caveats in mind, comments are now offered on indications of global trends in teacher demand, based on provincial data on sources of withdrawal other than retirements, together with retirement projection data from the Teachers' Superannuation Commission.

Table 4 below presents pertinent summary data on teacher withdrawals from *Education Statistics, Ontario,* 1984 through 1987.

Notable trends within the withdrawal data are the steady and dramatic increase in the retirements over the four-year period. Other categories are relatively stable for the most part, with the exception of the decrease in withdrawal from teaching for family reasons. Here, as in Table 5 on teacher acquisitions, the major "other" category is noted as requiring more detailed examination in future data collection and analysis, since the present record system shows no detail about this important source and loss of teachers.

Table 4
Full-Time Teacher Withdrawals: Ontario Public and Separate Schools

Destination	1984	1985	1986	1987
Retirement	1030	1255	1804	2130
Family Reasons	952	872	796	774
Illness	184	232	212	257
Death	102	107	83	104
Work outside education	256	223	231	238
Teach outside Ontario	63	90	86	106
Teach Ontario College/University	30	31	56	36
Teach private school	38	72	31	44
Further study	198	168	188	179
Other	1220	1089	1134	1223
Totals	4073	4139	4621	5091

Notes:

1. This table excludes movement between elementary and secondary schools, transfers

to administrative positions, formal exchanges and other reasons which do not constitute an actual withdrawal from the system;

2. This table also excludes movement from full-time teaching to part-time which is discussed below.

Table 5
Full-Time Teacher Acquisitions: Ontario Public and Separate Schools

Source	1984	1985	1986	1987
Ontario teacher education institutions	1389	1670	2248	2923
Re-entering teaching	1004	1052	1148	1395
Schools outside of Ontario	151	174	233	466
Private schools	59	90 *	136 *	236 *
Other	1852	2405 *	2684 *	3156 *
Totals	4455	5391 *	6449 *	8176 *

Notes:

1. This table excludes transfers between elementary and secondary schools, formal exchanges, and other reasons which do not constitute a system acquisition;

2. This table also excludes acquisitions from part-time teachers which are discussed below.

3. This table refers to a 12-month base (October 1 to September 30) for teacher acquisitions and cannot be interpreted as the number of the current year's graduates who received full-time teaching appointments in Ontario.

* Caution in interpreting these figures is advised as they reflect the period of extension of separate school funding.

Table 5 reflects a period of system expansion in the total teaching force, with notable increases in the rate of entry to the system from Ontario teacher education institutions (more than a 110 per cent increase in just four years), in those re-entering the teaching profession and in the acquisitions from undefined "other" sources. This latter figure may reflect a significant number of former supply teachers, a source which has been mentioned by many board officials in interviews, and one which a number of respondents have reported is beginning to reach its limits. It would appear that those who were sufficiently strong have already been hired to full-time positions. It also may reflect transfer from unfunded to funded separate secondary teaching and mobility of teachers from one board to another.

Most boards report shortages of supply teachers and a growing reliance on unqualified personnel to fill this need (e.g., parents, people with first bachelor's degrees only). Indeed, some boards indicate that this shrinking pool of supply teachers is beginning to interfere with their services and programs within schools and professional development programs, and that they expect that this shortage will ultimately affect contractual obligations and staff morale. Further, in the fall 1988 board staffing update (Appendix D), a number of boards spoke with a much greater sense of urgency about their staffing needs than they had even in spring 1988. Some large boards described their supply pools as practically non-existent, since they had depleted them through hiring suitable candidates for full-time positions. Data from the "lost generation" micro-study would certainly seem to confirm these reports.

Teacher acquisitions and withdrawals each year involve what has been an increasing movement between full-time and part-time employment status. Table 6a summarizes this activity in the same four-year period examined above, and provides a most important clarification of the picture on acquisitions and withdrawals.

Table 6a
Part-Time/Full-Time Teacher Mobility: Ontario Public and Separate Schools

Direction	1984	1985	1986	1987
Part-time to full-time	1581	1990	2905	3338
Full-time to part-time	1140	1254	1160	993
Net F/T acquisitions	441	736	1745	2345

The foregoing table illustrates that, over the four-year period, boards relied to a quite considerable, and increasing, extent on their pools of part-time teachers to meet the needs for an expanding full-time teaching force. Some of this movement from part-time to full-time status is a result of the extension of full secondary funding to Roman Catholic separate schools. Some individuals who were previously classified as "part-time," because they taught partly in the funded system and partly in the private component of separate secondary schools, are now classified as full-time as a consequence of full funding. The data do not readily allow for distinguishing between this reclassification case and real movement from part-time teaching to full-time teaching. Nevertheless, Table 6b below, which presents the data separately for public and Roman Catholic separate schools, indicates that the trend is present within the public system, thus identifying it as a trend worthy of note in understanding directions in teacher supply.

Table 6b
Part-Time/Full-Time Teacher Mobility: Ontario Public and Separate Schools

Direction	1984		1985		1986		1987	
	Public	Separate	Public	Separate	Public	Separate	Public	Separate
Part-time to Full-time	1115	466	1204	786	1480	1425	1761	1577
Full-time to Part-time	811	329	806	448	852	308	772	221
Net F/T Acquisitions	304	137	398	338	628	1117	989	1356

Considering these data in conjunction with the earlier table on other acquisition sources, it appears that there were three major sources for meeting the boards' needs for greater numbers of teachers: teacher education institutions (not through expansion initially, but rather through more graduates obtaining positions), their own and other boards' part-time teacher pools, and the large "other" group for which there is suggestive anecdotal information pointing to supply teachers as one important component.

To complete the picture of the change with respect to teacher demand over this same four-year period, Table 7 presents teaching staff data across the system in each year.

Table 7
Ontario Full-Time and Part-Time Teachers: Public and Separate Schools

Status	1984	1985	1986	1987
Full-time	85,779	86,378	89,017	93,184
Part-time (heads)	18,602	19,575	18,188	16,381
Part-time (FTE)	9,375	10,235	9,455	8,329

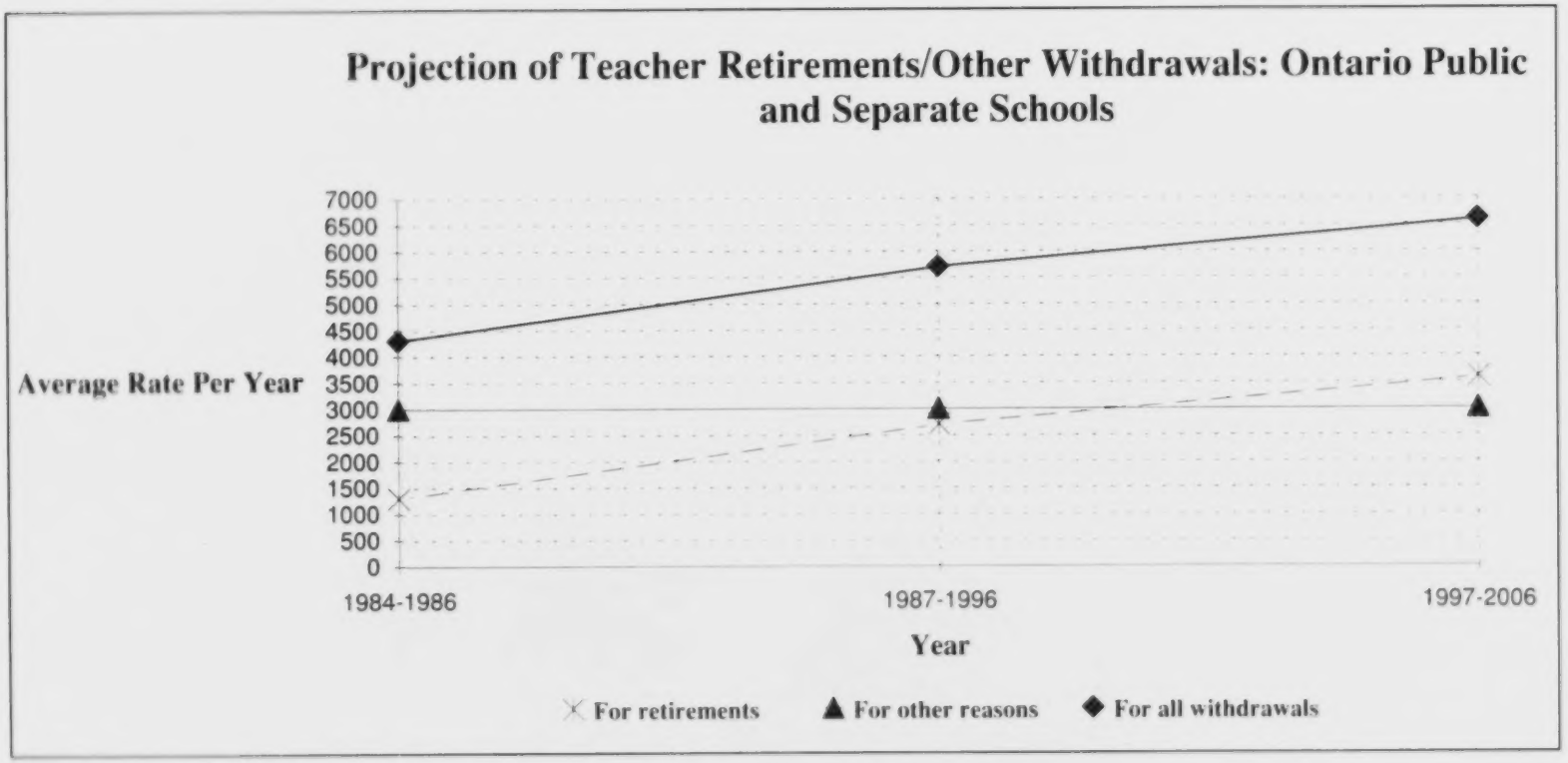
The Ontario Teachers' Superannuation Commission has provided data on its projections of new pensioners through 2006. Table 8 below and the accompanying figure integrate these data in a summary way with the retirement experience of boards in the period 1984 through 1987 in order to establish a general understanding of the place of growing teacher retirements overall in the teacher withdrawal aspect of system demand.

Table 8
Projection of Teacher Retirements/Other Withdrawals:
Ontario Public and Separate Schools

Average number per year	1984-1986	1987-1996	1997-2006
for retirements	1300	2700	3600
for other reasons	3000	3000	3000
for all withdrawals	4300	5700	6600

(This table excludes full-time to part-time and withdrawals which are not a real withdrawal from the system.)

Figure 1



Note: Figure excludes full-time to part-time teacher movement and withdrawals which are not real withdrawals from the system.

The total withdrawal projections above are averages only. The teachers' superannuation data indicate steady trend increases throughout the period of analysis with a significant, temporary drop in 1997 which reflects a change in the projection assumptions only and does not negate the overall trend through to 2006. There is clearly a far greater presence of retirement as a factor over the twenty years from 1987 to 2006 than it has been historically. Further, these withdrawal data should not be considered a demand forecast in itself as it does not take into account system enrolment growth (which has been referred to earlier) or any growth in teaching positions associated with program changes, improved teacher-pupil ratios, and so forth.

B. Retirement Bulge in 1988-89

The foregoing long-term retirement projection needs to be supplemented with a consideration of a unique situation with respect to the number of teachers possibly retiring in 1988-89.

The early retirement option under the Teachers' Superannuation Act, 1986 has created a very real possibility that there will be an unusually sharp one-year increase in retirements at the end of the 1988-89 school year. This is the final year of the three-year window under which eligible teachers who are at least 55 years of age may elect to retire without the normal reduction factor of 5 per cent for each step below the 90 factor (age plus years of service). The incentive for individuals to retire early is very strong, especially where they are sufficiently below the 90 factor in 1988-89 that it will take several further years of service to regain their relative pension position following the closing of the early retirement window.

One indicator of the possible size of the retirement bulge which may result from this option is that teachers' superannuation projections of annual retirement rates across the province show a 57 per cent increase in 1989 over 1988, from 2,613 to 4,121 and then recede sharply in 1990 through 1992 reflecting the departure of early retirees in 1989. The 1989 impact of the early retirement option would vary greatly from board to board depending upon the seniority of their staffs. Boards which have a teaching staff with a relatively high age profile, because they did significant hiring in and around the 1950's,

are anticipating a substantial exodus of teachers eligible for early retirement in addition to the normal annual steady growth in retirees. This phenomenon appears to be causing greatest concern in Metropolitan Toronto where the directors of the boards recently indicated that up to 2,400 teachers in their collective boards are eligible to retire in 1988-89.

As the teacher education institutions will require several years to increase their enrolment to a level which would be able to tolerate such an additional source of teacher demand, it would seem appropriate to examine means of smoothing out the effects of the pension amendment. The most direct means of doing so would be to extend for several years, or even eliminate, the September 1, 1989 sunset clause on the early retirement option for those who will have achieved eligibility for it by that date. This arrangement would permit many senior teachers, who remain highly committed to continuing their teaching careers for several more years, to decide for themselves whether and when they will opt in to early retirement. In the meantime, the boards which anticipate an unusually high exodus in the current year will be able to have the advantage of some of these highly experienced teachers for one or more further years as the teacher education institutions augment their enrolments.

It appears that there is enough evidence that this situation is a serious problem for some boards and that the solution lies in extending or eliminating the sunset clause. Serious and careful consideration should be given to such an amendment over the next few months. This extension of the early retirement option sunset clause should, of course, not increase the pool of eligible members of Teachers' Superannuation. Rather, an approach of simply removing the September 1, 1989 deadline, or deferring it, for those currently eligible would achieve the desired outcome of smoothing out the retirement bulge arising from this policy. Further, it would achieve this without in any way altering the most favourable terms announced to those eligible.

C. Elementary and Secondary Student Enrolment and Teaching Force Projections

The most recent national enrolment projections are available in a soon-to-be released report prepared by the Canadian Teachers' Federation (CTF) entitled *Projections of*

Elementary and Secondary Enrolment and the Teaching Force in Canada, 1987-88 to 2006-07. These projections are based on Statistics Canada's population projections in *Population Projections for Canada's Provinces and Territories, 1984-2006* and on actual data through 1986-87. The author acknowledges with appreciation Wilfred J. Brown of CTF for making this information available.

As with any set of projections, these are based on a series of assumptions. The CTF chose the population growth scenario which it deemed most plausible of the four alternative ones provided in the Statistics Canada document. It is a "medium" growth scenario in terms of its assumptions concerning the key variables. For example, assumptions are made of a constant fertility rate of 1.66 children per woman, immigration increasing to 150,000 per year by 1994-95 and emigration remaining constant at 50,000 per year, no significant changes in participation rates in schooling or in pupil-teacher ratios, etc.). Clearly, given various provincial policy initiatives, it may turn out that some of these assumptions prove to be too modest.

As Table 9 indicates, elementary enrolment can be expected to increase about one per cent per year or by approximately 12,000 students per year for most of the next ten years. Secondary enrolment is also projected to increase, although at a slower rate -- averaging about .3 per cent from 1986-87 to 1991-92 and one per cent from 1991-92 to 1996-97.

Table 9
Historical and Projected Public School Enrolment in Ontario by Level, 1986-87 to 2006-07.

Year	Elementary	Secondary
1986-87 (actual)	1,175,701	616,218
1987-88 (projected)	1,191,740	632,058
1988-89	1,195,405	628,034
1989-90	1,205,865	627,641
1990-91	1,220,591	625,368
1991-92	1,236,640	626,081
1992-93	1,254,042	627,563
1993-94	1,269,529	631,269
1994-95	1,280,815	638,613
1995-96	1,290,542	648,198
1996-97	1,298,104	658,210
1997-98	1,303,898	667,008
1998-99	1,306,497	673,786
1999-2000	1,305,525	679,746
2000-01	1,300,619	686,558
2001-02	1,292,547	694,121
2002-03	1,281,784	701,580
2003-04	1,269,161	707,710
2004-05	1,255,433	711,379
2005-06	1,241,258	712,611
2006-07	1,227,356	711,201

One major implication of the above enrolment data is, of course, that the total number of full-time teachers in Ontario can be expected to increase. As Table 10 indicates, over the next five years, the number of elementary teachers in Ontario can be expected to increase by about 1,000 per year mainly as a result of enrolment increase and then to grow more slowly over the next five years. The number of secondary teachers can be expected to remain relatively stable over the next five years, and then to steadily increase for the following five years at the rate of about 500 per year. Overall, then, the total number of teachers in Ontario according to these projections should increase at the rate of about 1,000 per year for the next ten years. Finally, it should be noted that, according to these projections, an overall net decline is likely to commence around 2003.

Table 10
Historical and Projected Number of Public School Full-Time Teachers in Ontario by Level, 1986-87 to 2006-07.

Year	Elementary	# Difference	% Difference	Secondary	# Difference	% Difference
1986-87	59,893	--	--	36,614	--	--
1987-88	61,525	1632	2.65%	37,533	919	2.51%
1988-89	62,293	768	1.25	37,517	(16)	0.04
1989-90	62,937	644	1.03	37,651	134	0.36
1990-91	64,343	1406	2.23	37,605	(46)	0.12
1991-92	65,396	1050	1.63	37,716	111	0.30
1992-93	66,492	1096	1.68	37,851	135	0.36
1993-94	67,421	929	1.40	38,120	269	0.71
1994-95	68,092	671	1.00	38,587	467	1.23
1995-96	68,682	590	0.87	39,166	579	1.50
1996-97	69,122	440	0.64	39,795	629	1.61
1997-98	69,467	345	0.50	40,327	532	1.34
1998-99	69,606	139	0.20	40,737	410	1.02
1999-2000	69,591	(15)	(0.02)	41,097	360	0.88
2000-01	69,329	(262)	(0.38)	41,509	412	1.00
2001-02	68,899	(430)	(0.62)	41,992	483	1.16
2002-03	68,325	(570)	(0.83)	42,443	451	1.07
2003-04	67,689	(636)	(0.93)	42,814	371	(0.87)
2004-05	66,956	(733)	(1.08)	43,036	222	(0.52)
2005-06	66,200	(756)	(1.13)	43,110	74	(0.17)
2006-07	65,429	(771)	(1.16)	43,025	(85)	(0.20)

It is noted that there are some discrepancies between the CTF actual data for 1986-87 and the data available in *Education Statistics, Ontario*. Although the reason for this difference has not been ascertained, it does not appear to affect the trends identified.

With regard to enrolment and teaching staff projections for the rest of Canada in this period, a similar pattern to Ontario's is expected, although generally not at as high a rate. As well, it is perhaps relevant to note that within the overall North American context, Canada and the United States project similar patterns with regard to an increasing need for teachers (see, for example, Gosman and Porreca, 1986; Hawley, 1986; and Maryland State Department of Education, 1986).

IV. The Supply of Teachers

A. Teacher Education Perspectives and Issues

The following comments were recently made by the Ontario Association of Deans of Education to the Ontario Legislature's Select Committee on Education. The issues considered bear on the supply of and demand for teachers and the context for any planning which may be undertaken in relation to findings.

1. Higher education in Ontario remains seriously underfunded despite some improvements over the past two years in the form of accessibility funding. While such short-term funding is extremely useful to universities to make immediate adjustments which serve students well, it is not the kind of funding basis from which long-term planning and tenure stream faculty appointments are made. It will be difficult, if not impossible, for universities to find the resources to adequately finance faculty renewal, and the pre-service, in-service and graduate programs in education which will be required to meet the expected demand over the coming decade.

2. The scale of the expected teacher shortage in the near future appears to be considerable, and the consequent funding requirements of such proportions that there will need to be a deliberate parallel emphasis on in-service and graduate needs to ensure that we do not inadvertently create a continuing education crisis through our attention to enhancing entry to the profession.

3. The linking of pre-service and in-service education to universities, with the important continuity that creates, has been a key element in the development of teacher education in Ontario which has enhanced both the status of the profession and the quality of education. It is of vital importance to the successful integration of theory and practice in teacher education, to the linking of teacher education to current research and development, and to the maintenance of the professionalism of our teachers that teacher education in universities remain firmly in place for all stages of the continuum in teacher education. It is strongly urged that, in the new forms of governance for teacher education which may develop, teacher education institutions and universities not be submerged, but rather that a balanced and cooperative model be established with the teacher education institutions of the universities as a full partner.

4. Ontario teacher education institutions are being held back in some instances in their natural development because of an unfortunate inequity which has arisen in the graduate program field, and in the long run it is to the detriment of teachers seeking advanced studies. At the same time that Ontario's provincial appraisals system constrains the growth of graduate programs, universities based outside of Ontario offer graduate programs in this province without substantive review by the Ontario Council on Graduate Studies. It would be desirable for the province to phase in substantive reviews of all graduate programs offered in Ontario, similar in form to those in place now under the Ontario Council on Graduate Studies, and expand funding for Ontario universities' graduate programs in Education, to ensure a high calibre of graduate education for all teachers enrolling in such programs in Ontario.

5. The Ontario Student Assistance Programme (OSAP) regulations need to be reviewed as they relate to the objective of helping to diversify the cultural, social and economic mix among those entering the teaching profession. Further financial support, especially through grants over the full extent of undergraduate and teacher pre-service study, are required to support teacher education institutions' efforts to draw in greater numbers of non-traditional students to teaching.

6. Changes are under way in the regulations governing teachers' superannuation which may undermine employment mobility of superannuated faculty from one university to another, and of leading professionals upon whom teacher education institutions depend for key appointments. The pension penalties for moving from one university to another or from a board of education to a university are likely to prevent such moves and result in a serious lack of staffing flexibility in attempts to expand or change programs to meet emerging needs.

7. One promising phenomenon, considered in the context of the increasing demand for new teachers, is the marked increase in interest in teaching as a profession. In the past three years, for example, the Ontario Universities' Application Centre reports that there has been a steady and significant rise in the provincial total of applications to consecutive teacher education programs -- from about 8,000 in 1985 to about 13,500 in 1988. Of the 13,500 applicants in 1988, only about 4,300 were admitted to Ontario teacher education institutions. The province is in the fortunate position of being able to

meet the need for an increased supply of new teachers without diminishing the standards for admission or reducing the program requirements as an incentive to draw more people into the profession.

B. Data Concerning the Teacher Education Institutions

In addition to the above-noted survey of school boards, information was elicited from all ten teacher education institutions in Ontario and was gathered from relevant documents.

1. Number of Enrolled Candidates

One of the most basic sets of data concerns the number of candidates enrolled in Ontario teacher education institutions. Table 11 summarizes the number of candidates indicated in *Education Statistics, Ontario* for the past 22 years as well as projections for the next several years. The number of candidates actually graduating with certification has normally been about four per cent less than the number of enrollees.

Clearly, the teacher education institutions responded in a major way to the surplus in the number of graduates as they declined quickly but somewhat belatedly from about 14,000 candidates in the late 1960's to about 7,000 in the early 1970's to about 3,600 in the early 1980's. The number of candidates remained stable through the 1980's. In anticipation of a growing need for more teachers and in response to the availability of provincial incentives, the teacher education institutions report a large increase in their enrolment for 1988-89 -- an increase of 417 or 11 per cent in this one year alone. They project an additional increase for 1990 of about 385 or 9 per cent.

A large proportion of the projected growth for 1989 (about two- thirds) is in the primary/ junior divisions. At this point, the teacher education institutions expect to be graduating about 625 additional primary/junior teachers per year by 1990.

Table 11
Number of Enrollees in Ontario Teacher Education Institutions, 1965-1990

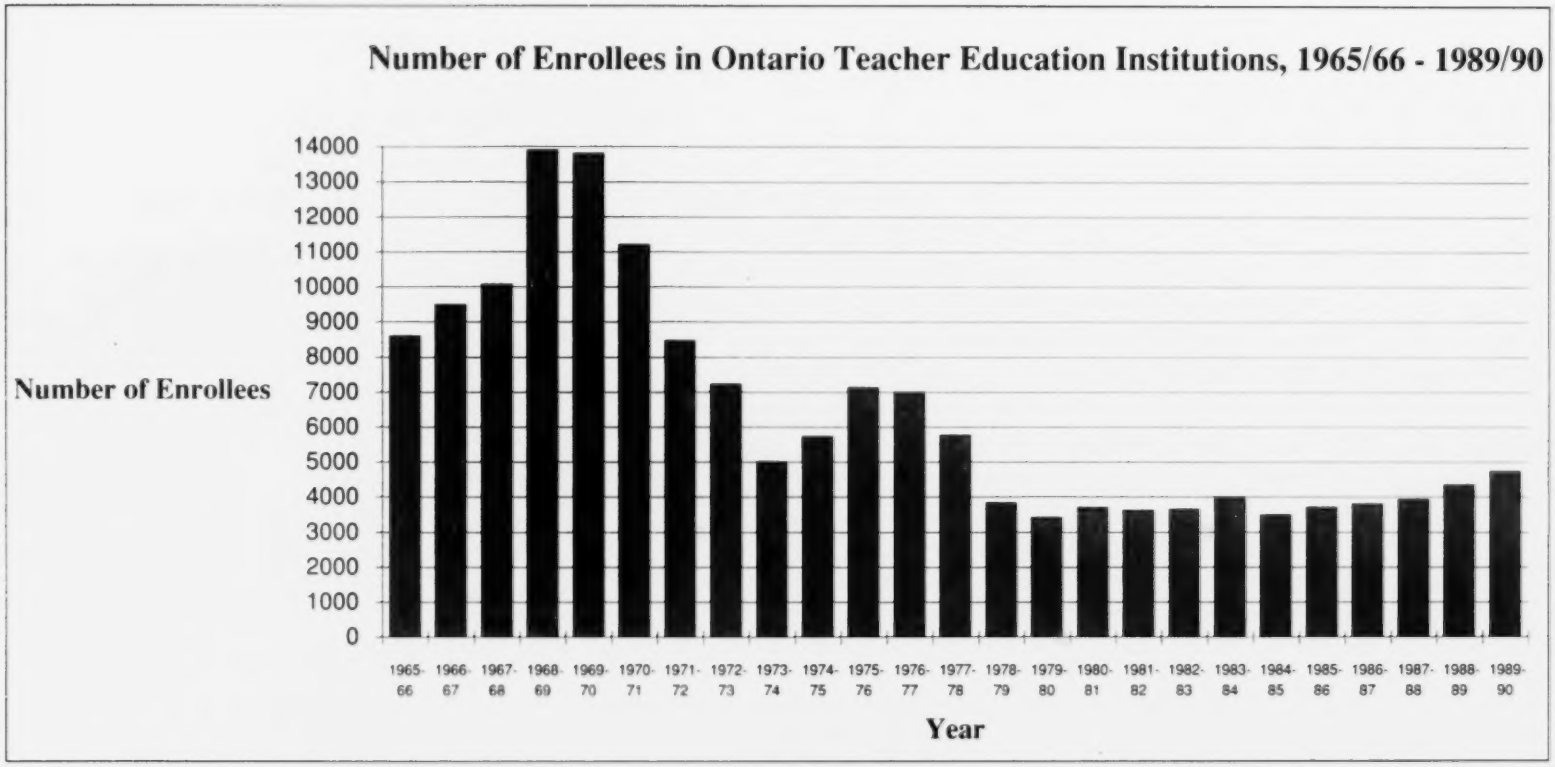
Year	Total Enrollees
1965-66	8,594
1966-67	9,485
1967-68	10,062
1968-69	13,912
1969-70	13,811
1970-71	11,199
1971-72	8,456
1972-73	7,209
1973-74	4,966
1974-75	5,720
1975-76	7,109
1976-77	6,950
1977-78	5,759
1978-79	3,825
1979-80	3,403
1980-81	3,694
1981-82	3,612
1982-83	3,637
1983-84	3,951
1984-85	3,483
1985-86	3,690
1986-87	3,796
1987-88	3,917
1988-89	4,334
1989-90	4,719 (est.)

The key question, of course, is whether these increases in the overall total and in the primary/junior divisions appear sufficient relative to the needs of the field. Before addressing that question further, one must consider some of the other data provided by the teacher education institutions.

2. The Gender Balance of Graduates

There has been a growing concern that teaching is becoming an even more preponder-

Figure 2


Number of Enrollees in Ontario Teacher Education Institutions, 1965/66 - 1989/90
Number of Enrollees
14000
13000
12000
11000
10000
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
1965-66
1966-67
1967-68
1968-69
1969-70
1970-71
1971-72
1972-73
1973-74
1974-75
1975-76
1976-77
1977-78
1978-79
1979-80
1980-81
1981-82
1982-83
1983-84
1984-85
1985-86
1986-87
1987-88
1988-89
1989-90
Year

antly female profession. The data provided by the teacher education institutions confirm this trend and present a dramatic imbalance in the enrolment in the primary/junior division. The following summarizes the 1988 data:

Table 12
Enrolment in Teacher Education Institutions, 1988, by Gender and Division

	Male		Female	
	#	%	#	%
P/J	151	10.4	1299	89.6
J/I	344	34.7	648	65.3
I/S	649	44.0	826	56.0

Not only do females outnumber males in the primary/junior divisions by a 9:1 ratio, but they now even exceed by a 5:4 ratio the number of males enrolling in that once male bastion: the intermediate/senior level. The overwhelming predominance of females at the primary/junior level is a serious cause for concern to those who appreciate the importance of having both female and male role models at this age level.

Most teacher education institutions report an expected increase in the number and proportion of males at the primary/junior level as well as an expected increase in the number and percentage of females at the intermediate/senior level, especially in mathematics and sciences. Clearly, this is an area that calls for further attention.

In this connection, it may be of use to note the finding reported in *The Teaching Experience* by Alan King, *et al.*, that the main factor reported by teachers as influencing their decision to enter and to continue teaching is the opportunity to work with young people (1988, pp.16-17). In our culture and society, young women tend to have many more opportunities to develop experiences, interests and a sense of effectiveness in working with young people. This suggests that one set of initiatives to consider in

seeking to encourage more males to pursue teaching as a career would be to develop in secondary schools and universities, more opportunities for, and encouragement of, males to work with children or young students (e.g., through cooperative education programs).

3. Religion

While there is some variation from one institution to another, overall about 30 per cent of the graduates of teacher education institutions are reported as being enrolled in the special course offered for those interested in employment in separate school boards. The teacher education institutions report expected growth over the next five years in the percentage of students with an interest in this area, particularly due to the extension of funding to separate school boards.

4. Ethnic, Age and Socio-economic Status Composition of Teacher Candidates

Teacher education institutions report that their teacher candidates are overwhelmingly white (upwards of 90 per cent) and Anglo-Saxon. About half are in the 21-24 age group and there is relatively little ethnic diversity. The relative homogeneity of student teachers on these dimensions is a further source of concern, particularly in an increasingly multicultural society.

With regard to the socio-economic status origins of teacher candidates, some institutions expressed a concern about the lack of candidates from more financially disadvantaged backgrounds. This is consistent with the comments by representatives of the Ontario Association of Deans of Education presented to the Legislature's Select Committee on Education concerning the adequacy of the Ontario Student Assistance Programme (OSAP) regulations in ensuring that they support the objective of diversifying the cultural, social and economic mix among those entering the teaching profession.

5. Capacity for Further Expansion

Most teacher education institutions presently report that they are at or near full capacity. They indicate that they might be willing and able to admit more candidates; however, it is generally stressed that there would be no room to accommodate additional students

unless there were to be a concomitant increase in essential resources: faculty, space, practicum sites, and financial support.

This issue relates to concerns noted above by the Ontario Association of Deans of Education in their presentation to the Legislature's Select Committee on Education: that higher education in Ontario remains seriously underfunded and that injections of short term funding are not the kind of financial basis on which long-term planning and tenure stream faculty appointments can be made. It will be difficult for universities to find the resources to adequately finance faculty renewal, and the pre-service, in-service and graduate programs which will be required to meet the expected demand over the coming decade.

6. The Pool of Prospective Applicants

In considering the capacity of teacher education institutions for further expansion, it is pertinent to consider whether there is an adequate pool of prospective applicants to teacher education institutions.

As noted previously in the section on Teacher Education Perspectives and Issues, there has been a steady and significant rise in the provincial total of applications to consecutive teacher education programs -- from about 8,000 in 1985 to about 13,500 in 1988. Since only 4,300 were admitted to Ontario teacher education institutions, the province appears to be in the fortunate position of being able to meet the need for an increased supply of new teachers without diminishing the standards for admission or reducing the program requirements as an incentive to draw more people into the profession. It is also noteworthy that, in contrast with the U.S. experience (for example, see S. Lake, 1985, M. Pajakowski, 1984, and L. Darling-Hammond, 1984), Ontario institutions report that the strength of the applicant pool and the standards generally required for admission (e.g., minimum grade point average of B+) are extremely high and have never been higher.

It should be noted that, at this point, most teacher education candidates are chosen solely on the basis of grade point average. Concern has been expressed that in using this procedure, a good deal of relevant and important information about the suitability of candidates for teaching is overlooked.

7. Faculty Retirements: A Microcosm of the Supply and Demand Crisis?

There will be an interesting parallel situation concerning supply and demand in post-secondary institutions when the colleges and universities begin to experience large numbers of retirements in the mid-1990's. Within the teacher education institutions, for example, most report substantial retirements of full-time faculty members. On the whole, it is anticipated that approximately one-half of the education faculty in the province will retire over the next five years. Leaving aside whatever growth in faculty complement may be required to deal with additional students, merely to replace retirements will require more than 200 new tenure stream faculty members. Of course, teacher education institutions are also likely to be affected by the retirement of many of the part-time and seconded faculty members who are full-time professionals in the field and who play a vital role in their pre-service and in-service programs.

In regard to what might become a crisis for teacher education institutions themselves in identifying an adequate supply of new faculty members, one area of concern that has been noted is the proposed new superannuation legislation which constrains mobility between universities and between universities and boards.

8. Perceived Shortages or Pressure Points

The comments in one university's submission seemed to sum up the general perceptions of the teacher education institutions concerning the prospects of a teacher shortage:

> The apparent rate of retirements (escalated by early retirement opportunities) is due to the great number of teachers who came into the profession in the early sixties and who are leaving or are about to leave, again, in great numbers. From calls we get, boards are having difficulty finding qualified teachers (especially in French immersion and in most 'technical' areas). Our impression is that there is no current shortage (except as mentioned above) but there probably will be a shortage over the next two to five years if faculties of education do not increase enrolment.

In addition, concerns were expressed about the adequacy of the supply of teachers in

Intermediate/Senior mathematics, sciences, and several other areas as well as the number of graduates needed to teach in separate boards.

Most agreed that in two to three years a general shortage of qualified teachers is likely to be experienced and that it is likely to become quite serious unless there is some expansion in enrolments in teacher education institutions.

C. The "Lost Generation" of Teachers

Some of the questions raised in the foregoing analysis bear on speculation on whether there is a "lost generation" of teacher graduates scattered throughout the province who had the misfortune to receive their Ontario Teacher Certificates over the past fifteen years of glut in the teacher market, from the early 1970's through the 1980's. A question to be addressed is whether there could be a large pool of qualified teachers temporarily in other occupations, or partly in the profession as supply teachers, or formerly from Ontario and now teaching in other provinces, who would be able and available to assume full-time teaching positions in Ontario as the market expands.

The ideal way of addressing this question would have been to survey a representative sample of those graduates of the last three to seven years who are not employed in teaching to see if there is a significant "reserve pool." Unfortunately, the lack of availability of reliable current addresses militated against this mode of examination of the question.

Nevertheless, four other sources of information were explored. First, in the survey of teacher education institutions, information was requested on the perceptions of the continuing availability of unemployed graduates. While admittedly impressionistic, it was reasoned that, through counselling, placement offices and records, and other interactions, faculty members would have a distinct and useful viewpoint on the potential participation in the labour market of their past graduates. Most respondents reported the view expressed by one that, "many of these surplus teachers have settled into other careers at this point and a fairly small percentage of them will be actively seeking teaching positions."

A second approach to this question of the availability of the supply of unemployed teachers involved a micro-study of supply through examining the files of the complete population of approximately 1,000 applicants in 1988 to approximately 200 teacher position openings at all levels in one south-central Ontario board. The intent was to arrive at a profile of the applicants' histories to determine the possible size of the "lost generation" of teacher graduates actively in the market for teaching positions, and to understand more fully the array of sources of teacher supply. Such an examination extends the understanding available through the *Education Statistics, Ontario* data referred to above.

It is apparent in examining the data from this study that applicants who can be defined as "lost generation" teachers still represent an important source of new teachers (approximately 20 per cent of the applicants in this pool). However, two major groups -- new teacher graduates (1988) from teacher education institutions and teachers currently employed by other boards of education -- constitute the largest percentage of the applicants (approximately 30 per cent and 27 per cent respectively). Further, the "lost generation" teachers were mainly recent teacher education graduates of the past three years. As the number of graduates moving directly into teaching increases, this source of supply is significantly reduced.

A third approach to an examination of the "lost generation" involved looking at systematic province-wide data on the employment status of the graduates of the past few years.

Table 13
Graduates of Recent Years as Employed vs. Unemployed in Teaching in Ontario as of September 1986: All Divisions

Graduates of	Number Employed (%)	Number Unemployed(%)	Total
1983-84	2139 (56.7)	1636 (43.3)	3775
1984-85	1918 (54.5)	1600 (45.5)	3518*
1985-86	1742 (50.4)	1715 (49.6)	3457

* Note that there is a minor discrepancy between the data in *Education Statistics, Ontario* on teacher education enrolments in 1984-85 and 1985 graduates.

Table 13 summarizes data provided by the Professional Development Branch, Registrar Services Unit, Ministry of Education which indicates the number and percentage of graduates of each of three recent cohorts that were employed in teaching or not as of September 1986. These data indicate that about half of the graduating cohort for each of these years obtained employment in teaching. As Table 14 indicates, a much larger proportion of the primary/junior graduates obtained employment (about 67 per cent). These data also suggest that the total pool of unemployed primary/junior graduates from these cohorts (1,419) is not very large and would presumably be reduced even further by those no longer available for or interested in teaching.

Table 14
Proportion of Primary/Junior Graduates Obtaining Employment in Teaching in Ontario, 1984-1986, as of September 1986

	Number P/J Graduates Employed	Number P/J Graduates	%
1983-84	1030	1449	71.1
1984-85	949	1469	64.6
1985-86	894	1374	65.1
Totals	2873	4292	66.9

A fourth set of data on teacher education graduate employment that was gathered concerned the 1988 cohort of graduates. In early October, 1988 a survey (Appendix E) was conducted of 70 per cent of the 1988 Ontario teacher education graduates from various teacher education institutions across Ontario to determine their employment status.

Approximately 65 per cent of those surveyed responded and of that group 70 per cent are employed (75 per cent from elementary and 65 per cent from secondary). The break-down of the results is presented in the following table.

Table 15
Teacher Education Graduates of 1988
Employed vs. Unemployed in Teaching in Ontario as of October 1988:
All Divisions

	Employed Full-Time in a Public or Separate School(%)	Not Employed Full-Time in a Public or Separate School(%)	Totals
Elementary	697 (74.5%)	238 (25.5%)	935
Secondary	448 (64.6%)	246 (35.4%)	694
Totals	1145 (70.3%)	484 (29.7%)	1629

It should be noted that people were only classified as being employed if they held full-time teaching positions in public or separate schools in Ontario. People were classified as unemployed if they were not employed in education or if they were not teaching full-time in a public or separate school in Ontario. Therefore, people doing supply work or part-time teaching or those employed in private schools and other educational settings were not classified as employed. Also classified under unemployed are a small percentage of people who had not sought employment at all or did so in other provinces or countries. Obviously, by using a less stringent definition for employment, an even higher percentage of the graduates would actually be shown as employed in education.

Below is a comparison with the results obtained in two previous studies done in the 1980's which shows a significant increase in the number of teacher education graduates now being hired. (See Atkinson and Sussman, 1986, page 225, for the 1983 data. The source of the 1986 data is the Ministry of Education as noted above). This trend suggests a shrinking pool of unemployed teachers available for full-time or supply teaching.

Table 16
Graduates Employed Full-Time in Public and Separate Schools

1983	1986	1988
38%	50%	70%

Several other noteworthy observations were made in reviewing information given by the recent graduates. For example, some teachers holding qualifications in high demand areas such as Intermediate/Senior (I/S) mathematics and science were not employed, although they appeared to reside in areas where the local boards were claiming a need for teachers with such background. Secondly, a number of people reported that they were teaching in high demand areas for which they did not hold qualifications. Some examples are as follows:

Division or Subject Specialty	
Of Training	**Of Employment**
I/S Physical Education and Political Science	I/S Mathematics and History
I/S Mathematics and Physical Education	Junior Division
I/S History and Physical Education	I/S Science and Business
I/S French and Physical Education	I/S Mathematics and Science

Finally, a significant number of teachers holding a qualification in I/S French were teaching in Primary and Junior Division French programs.

V. Conclusion

A. Future On-Going Data Gathering on Teacher Supply and Demand

The current study has provided useful information on the array of data and data sources for future teacher supply and projection studies. These studies ought to be conducted on a routine basis to inform those concerned with teacher personnel planning both centrally and in boards of education and to inform teacher education institutions' planning activities.

For a variety of reasons relating to the nature of the analysis required, the variation in boards' teacher personnel records, and the confidentiality of some of the necessary information, it would seem appropriate for the Ministry of Education to assume direct responsibility for future on-going projection studies. The information on the following pages would need to be collected from all boards on a routine annual basis. The School September Reports could be supplemented where necessary to ensure that the Ministry gathers all of the following information:

1. For each new full-time teaching staff appointment:
   - age
   - social insurance number
   - years of full-time teaching experience
   - divisions and grade level(s)
   - teaching subjects (where applicable)
   - language of instruction
   - source of appointee (including immediately previous occupation and teaching history category such as "returning to teaching following one year or more out of teaching force", "from board's supply teacher pool", "from a position at another board", "direct from teacher education institution", etc.)
   - reason for position opening (including enrolment growth, retirement, implementation of a specific policy, teacher replacement for reasons other than retirement under discrete categories, etc.)
   - teacher education institution attended and year
   - year of receipt of Ontario Teacher's Certificate (OTC).

2. For each new and continuing part-time teacher appointment, the same categories of information as well as FTE.

3. For all supply teachers listed with the board, the same categories of information and extent of supply appointment.

4. For all teachers who have left a full-time or part-time (separately reported) position with the board over the same reporting period, reason for departure, and destination where other employment or study is involved.

5. Medium-term projections by board staff of the number of new positions or reduced positions anticipated by division, grade levels, subject, and language of instruction. For each change, an indication of the reason for the addition or reduction of a position (e.g., enrolment growth/decline at grade level, anticipated retirements, program change, etc.). A projection of three to five years would seem warranted and a sufficient forecast period to supplement the trend analysis available from information gathered under 1 through 4 above.

As well, information from teacher education institutions on their graduates, programs, and enrolment plans, and teachers' superannuation data could be added to provide a base for highly textured, annually updated teacher supply and demand projections.

Teacher education institutions would need to be surveyed annually with respect to numbers of graduates, divisions and fields of certification, and their three- to five-year enrolment plans. This information could be supplemented by analysis of OTC S.I.N. numbers by year and board reports on full-time, part-time and supply hirings to determine the employment status of teacher education graduates as teachers in Ontario. As well, periodic surveys of non-Ontario employed graduates might be attempted to determine the destinations of samples of those who are not employed in teaching in Ontario.

B. Concluding Remarks

Although the information presented in this report raises a wide range of questions with

respect to teacher mobility, sources of supply of teachers, and the nature of withdrawal, the following conclusions are offered.

1. There is a total system trend of increasing teacher withdrawal of considerable impact on total demand. The most significant piece of information to bear in mind is that teacher retirements alone will equal the present number of teacher education graduates by the mid-1990's. According to the projections of the Ontario Teachers' Superannuation Commission, not only will the number of retirees accelerate sharply around 1995, but in addition, there will be yet another upswing in numbers around the turn of the century, with the level remaining high until about 2008 when there will likely be a sharp drop in the number of retirements.

2. This pattern of retirement is occurring at a time of modest system expansion in total numbers of full-time teachers as a consequence of some increase in the Ontario birth rate, migration from elsewhere in Canada, and immigration, and as a consequence of policy and program changes such as Kindergarten expansion, teacher preparation time, and improved Primary Division teacher/pupil ratios. For example, the data drawn from the Canadian Teachers' Federation and Statistics Canada projections suggest that there is a need for approximately 1,000 new teachers a year for the next ten years in order to address the school-age population growth of about 15,000 new students per year. It is obviously difficult to determine the overall impact of program and policy changes which can vary with time. For the next few years at least, these factors will undoubtedly further inflate the number of new teachers required.

3. Strong regional, intra-regional, division level, and separate/public system variations complicate the pattern dramatically. Some boards continue to experience decline or remain constant in enrolment and teaching staff overall or at the secondary school level, while other boards are faced with hiring hundreds of new teachers each year for the foreseeable future.

4. Although teacher education institutions have not until this year significantly increased their overall intake to pre-service teacher education programs, teacher graduates -- for years suffering in a glutted market for new teachers despite the dramatically reduced enrolments in education programs in the seventies and eighties -- are beginning to find positions in boards in rapidly increasing numbers.

5. During this period of increased teacher hirings, part-time teachers and supply teachers also appear to have played a significant role in meeting increased full-time teacher demand. In addition to the system data on part-time teacher hirings, a number of boards which have been engaged in major teacher recruitment and hiring exercises in recent years have remarked that they have hired many of their available, qualified supply teachers full-time thereby causing a significant reduction in their supply pools; they have expressed concerns about meeting their supply needs in future. To the extent that part-time and supply teachers have made up a significant component in the new hirings over the past three or four years, these pools may be relatively small in future resulting in proportionately greater reliance on current teacher education graduates for new hirings.

6. The data presented above, and interviews with board officials, have also begun to identify a pattern of decreased withdrawals from the teaching force for family reasons. This situation, together with the movement from part-time and supply roles to full-time teaching positions, may well reflect a trend for fewer women teachers to divide their years and time between full-time teaching and family, or for withdrawals to be for periods of lesser duration. This trend may well be in place at this time, with future assistance in meeting boards' needs for full-time teachers from this source being somewhat reduced from the pattern seen in the 1984-87 data.

7. As a result of the economic and other forces which have been described herein, the most severe shortages of teachers are likely to be experienced in urban areas, and particularly in the Metropolitan Toronto region, in elementary grades and in French programs. Other specific program area shortages in secondary level subjects such as mathematics, sciences (particularly in physics and chemistry), and technological studies will also present serious challenges.

8. There will be an interesting parallel situation concerning supply and demand in post-secondary institutions when the colleges and universities begin to experience large numbers of retirements in the mid-1990's. Within the teacher education institutions, for example, it is anticipated that approximately one-half of the education faculty in the province will retire over the next five years.

9. The projections identified herein suggest that teacher retirements will exceed 3,000

annually by the mid-1990's, that there will continue to be at least the current real withdrawal each year of about 3,000 teachers for other reasons, and that there will be at least an annual increase of 1,000 teachers throughout this period for reasons of enrolment growth. Additional teachers will also be required for on-going and future policy and program initiatives. Based on this information, one may conservatively estimate a requirement of at least 7,000 new teachers annually in the early 1990's rising to more than 7,500 by 1995. With regard to the supply of teachers, it has been noted that sources other than direct entry from Ontario teacher education programs appear to have been greatly reduced through recent trends toward increased board hiring of the "lost generation" teachers of the teacher glut years, through hiring part-timers and supply teachers into full-time vacancies wherever possible, and through former teachers returning to teaching in recent years. It may well be unwise from a planning perspective to assume that these historic sources will provide more than, perhaps, 1,000 or so new teachers annually throughout the 1990's. Taking all of these considerations into account, as well as an expectation that some teacher graduates will always decide to turn to other occupations or teach outside of the province, it appears that Ontario would need about 6,500 teacher education graduates per year by the early 1990's and about 7,000 annually by the middle of the decade. While the thought of the near doubling of graduates by the turn of the century seems dramatic by comparison with today's numbers, it pales when set into the historical context of the numbers of teachers graduated during the previous period of shortage as illustrated in Figure 2.

It would appear that, at this moment, Ontario does not have a teacher shortage but it has a teacher shortage in its infancy. Without intervention, this shortage will become increasingly serious within the next few years and is likely to become full blown by the mid-1990's. Generally, school boards are not reporting that they cannot hire sufficient numbers of teachers to meet their present needs. However, they are reporting that they have begun to actively recruit teachers and to recruit across Canada and beyond for the first time in many years. In a number of instances, boards are also reporting that they are now having difficulty in hiring the calibre of teachers to which they have become accustomed and in several areas, such as French programs, they cannot find a sufficient number of qualified teachers. Boards spoke with a considerably greater sense of urgency about their situations in the fall 1988 board staffing update than they had even in the main surveys just a few months earlier.

Without significant increases in the number of teacher education graduates over the next few years, Ontario is likely to be in the throes of a teacher shortage in which retirements outstrip the number of teacher education graduates, supply and part-time teacher pools dwindle, enrolments increase because of higher birth rates, immigration and migration, and policy changes and pressure for high quality education demand more teachers. However, with good planning, information and the cooperative effort of the government, the universities, the federations, the school boards and other relevant organizations, this scenario can be avoided.

C. Recommendations

Based on the foregoing discussion, the following recommendations are offered for consideration:

1. Informing Individual University Planning

THAT all teacher education institutions be fully apprised of the findings of this study on supply and demand for teachers in Ontario, and future analyses which update the projections, with a view to expanding their pre-service enrolment;

that this be done initially in the fall of 1988 to enable universities to take the need for an immediately increased supply of teachers into account in their planning for 1989-90 admissions;

that universities be urged to make available the resources necessary to support additional enrolment in their teacher education faculties, colleges and schools as appropriate to their circumstances; and

that teacher education institutions in the south central Ontario region be asked to assume a special mandate to significantly increase their pre-service enrolment to meet the rapidly accelerating demand for teachers throughout most of this region.

2. Providing Provincial Funding for Increased Education Enrolment

THAT the provincial government, through the Ministry of Colleges and Universities, assign a high priority to teacher education in all of its university funding programs, including targeted same year formula funding for all teacher education enrolment increases, targeted French language teacher education (including French as a First Language and French as a Second Language), capital funding to provide the additional accommodation required to house the further enrolment where necessary, and targeted funding for innovative in-service programs designed to support the movement of teachers to subject areas, language of instruction, and/or division levels of particular shortages; and

that these programs be announced as quickly as feasible to assure universities that adequate resources will be in place to support their expansion plans.

3. Establishing Specific and Differentiated Teacher Pre-service Enrolment Targets

THAT teacher education institutions be asked to plan toward a collective target of approximately 6,500 pre-service graduates per year by the early 1990's and approximately 7,000 per year by the mid-1990's;

that this planning take into account the increasingly refined understanding of subject area, division level, language of instruction and regional variations in supply of and demand for teachers; and

that this planning be supported by annual detailed analyses and projections provided by the Ministry of Education.

4. Continuing Support to Teacher In-service and Graduate Programs in Education

THAT the Ministry of Colleges and Universities and all Ontario universities engaged in such programs maintain their commitment to teacher in-service and graduate education programs during this extended period of re-emphasis and expansion of pre-service programs.

5. Selecting the Best Possible Teacher Education Candidates

THAT teacher education institutions employ a variety of measures in addition to grade point average to assess the suitability of teacher education applicants in order to select the best possible candidates to become teachers.

6. Addressing Gender, Cultural and Age Imbalances

THAT the Ministry of Education, teacher education institutions, school boards and the teacher federations develop proactive strategies in recruitment, financial support, admissions, and candidate academic support programs to address the issue of the gender imbalance, in Primary/Junior programs most particularly, which has led to a small and decreasing proportion of males in teaching, and also to increase the proportion of visible minorities, mature and second career individuals, non-traditional and economically disadvantaged individuals in teacher education.

7. Ensuring Adequate Financial Support for Teacher Candidates

THAT the Ontario Student Assistance Programme (OSAP) regulations be reviewed with a view to further supporting financially disadvantaged,

non-traditional and mature individuals' participation in teacher education through to the completion of their four or five years of university study required to become certificated as a teacher in Ontario.

8. Encouraging and Assisting Teachers to Move to Areas of Critical Staffing Needs

THAT the Ministry of Education provide funding support to school boards to enable incentives and opportunities to be established to encourage appropriate redeployment of teachers into areas of critical need where shortages exist;

that this funding include not only financial incentives to the teachers electing to undertake such career shifts, but also in-service education, curricular support and other resources to ensure effective teaching in the new area; and

that these arrangements be developed as quickly as possible to meet certain immediate needs such as those in French, Intermediate/Senior mathematics, and so forth.

9. Adjusting Teachers' Superannuation to Assist with Teacher Supply

THAT Teachers' Superannuation regulations be amended by the spring of 1989 to allow teachers who will have qualified under current early retirement provisions to maintain their option of early retirement indefinitely in the future without financial penalty for deferral beyond the initially announced three-year "window of opportunity";

that, for the foreseeable future, the early retirement program not be extended to additional teachers beyond those for whom there is current provision;

that regulations support, rather than penalize, teachers moving from boards to teacher education institutions and from one university to another; and

that there be a significant relaxation of the 20-day restriction on superannuated teachers undertaking temporary and supply teaching assignments without pension penalties in order to allow boards to draw on this relatively youthful group of retirees who represent much experience and wisdom as well as to alleviate the escalating shortage of qualified supply teachers.

10. Addressing the Staffing Crisis in French-Language Instruction

THAT the Ministries of Education and of Colleges and Universities commission a study on the status of French-language instruction in Ontario (including all programs at all levels in both French as a First Language and French as a Second Language) with a view to determining the demand for and to support planning for enhancing the supply of new teachers as well as in-service, curricular and consultative support for teachers and French-language programs.

11. Developing a Database to Support Teacher Supply and Demand Planning

THAT the Ministry of Education undertake on an on-going, annual basis detailed Ontario teacher supply and demand analyses and projections;

that the findings of these studies be regularly made available to teacher education institutions, school boards and teacher federations;

that the Ministry by 1989 extend the September Reports and add such further surveys as are necessary to provide the first annual report on teacher supply and demand by January 1990;

that, in the meantime, a study be conducted on current sources of teacher supply other than teacher education institutions with a particular focus on the extent of and potential for enhancing such sources; and

that within this follow-up study the major "other" category in *Education Statistics, Ontario* data on teacher acquisitions and withdrawals be investigated; and

that teachers' superannuation records be adjusted to provide direct access to pension and retirement data by division so that more finely textured analyses may be conducted.

12. Investigating a Common Hiring Date

THAT the Ministries of Education and of Colleges and Universities consult with teacher education institutions, school boards and the teacher federations on the merits of establishing for September 1989 and subsequent years a common hiring date for teachers in Ontario in order to ensure that the increasingly vigorous recruiting which boards must undertake is conducted in an orderly fashion and to the best advantage of both the boards and their prospective new teachers.

13. Investigating a Central Registry for Teachers and Boards

THAT a Central Registry of Teacher Personnel and Vacancies be considered for possible implementation by the spring of 1989 which would facilitate the teacher placement process following the first round of boards' recruiting for each September to match certificated but unemployed teachers with board requirements which remain unfilled.

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Appendix A

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Sample cover letter to Directors for survey of School Boards

May 12, 1988

Dr. E.N. McKeown
Director of Education
Toronto Board of Education
155 College Street
Toronto, Ontario
M5T 1P6

Dear Dr. McKeown:

The issue of the balance of the supply of and demand for teachers is emerging as a matter of vital concern to school boards, the government, the teachers' federation and affiliates, faculties of education, and other interested parties. Indeed, there appears to be a growing sense of impending crisis.

In order to address this concern, the Ministry of Education and the Ministry of Colleges and Universities have commissioned me to conduct a study of the need for teachers and to develop a plan for on-going information gathering on this vital issue.

As one of the first steps in this process, the attached survey, which is being sent to the Directors of all the public and separate school boards in Ontario, has been developed to gather information about your Board's perceptions of its short and long term needs for teachers as well as some of the underlying policy assumptions.

I greatly appreciate your co-operation in having this important survey completed at such a busy time of the year. I realize that completing this detailed survey will place an added burden on your staff, but I trust you share with me, with the Ministries, and with the profession as a whole a keen sense of the urgency and importance of ensuring an adequate supply of teachers to meet the staffing needs of boards of education. Under the circumstances, you may not be able to answer all questions in this questionnaire, but I would appreciate as much information as you can provide at this time.

...2

I would like to provide you with assurance on two points. First, any publication or dissemination of the results of this study will ensure the confidentiality of your Board's response. Analyses will present aggregate or summary information which preserves the anonymity of the sources. Second, you will be provided with the results of this study as soon as it can be made public.

It is most important that your completed survey be returned by Monday, June 20, 1988. If there are any questions about the process or the survey, please do not hesitate to contact me at (416) 736-5003.

Once again, thank you for your help.

Yours sincerely.

Laverne Smith
Associate Dean & Associate Professor
Faculty of Education

LS:rc
Encl.

cc: Superintendent of Personnel

SURVEY OF SCHOOL BOARDS' PROJECTED NEEDS FOR TEACHERS

FOR
TEACHER SUPPLY AND DEMAND STUDY
MINISTRY OF EDUCATION AND MINISTRY OF COLLEGES AND UNIVERSITIES

Professor Laverne Smith
Faculty of Education
York University

May 1988

1. **Please indicate the name of Board for which you are responding:**

_____

2. **Please indicate:** (a) your name: _____

(b) your position: _____

(c) your phone number: _____

3. **Please indicate the number of teaching personnel currently employed by your Board in each of the following divisions:**

Current Teaching Personnel

	Primary (JK-3)	Junior (4-6)	Intermediate (7-10)	Senior (11-OACs)	All Other Teaching Personnel e.g., Administrators, Resource Personnel	Totals
Full-Time						
Part-Time Individ.						
Part-Time FTE						

4. If the above information is available in regard to language of instruction (English or French), please provide:

Current Teaching Personnel - English and French

	Primary (JK-3)		Junior (4-6)		Intermediate (7-10)		Senior (11-OACs)		All Other Teaching Personnel		Totals	
	Eng.	Fr.	Eng.	Fr.	Eng.	Fr.	Eng.	Fr.	Eng.	Fr.	Eng.	Fr.
Full-Time												
Part-Time Individ.												
Part-Time FTE												

5. Please indicate the number of supply/occasional teachers that your Board currently lists:

Elementary _____ Secondary _____ Other _____ Total _____

6. Please indicate how many of your Board's full-time equivalent (FTE) teaching personnel (including administrators and resource personnel) teaching in the following divisions were eligible to retire (i.e., reached the 90 factor or equivalent or were working past it) in each of the following years and how many actually took retirement:

	Eligible to Retire by FTE				Actual Retirements from Eligibles by FTE			
Year	P/J	I/S	Other	Total	P/J	I/S	Other	Total
1984								
1985								
1986								
1987								

7. If the above information is available in regard to language of instruction (English or French), please provide:

	Eligible to Retire by FTE								Actual Retirements from Eligibles by FTE							
	P/J		I/S		Other		Total		P/J		I/S		Other		Total	
Year	Eng.	Fr.	Eng.	Fr.	Eng.	Fr.	Eng.	Fr.	Eng.	Fr.	Eng.	Fr.	Eng.	Fr.	Eng.	Fr.
1984																
1985																
1986																
1987																

8. For Intermediate/Senior, please indicate FTE actual retirements by subject areas:

Subject Areas	1984	1985	1986	1987
Business Education - Accounting				
Business Education - Data Processing				
Business Education - Market. & Merch.				
Business Education - Secretarial				
Classic Studies - Greek				
Classic Studies - Latin				
Computer Science				
Dramatic Arts				
Economics				
English (First Language)				
English (Second Language)				
Environmental Science				

Subject Areas	1984	1985	1986	1987
Family Studies				
French (Second Language)				
French (First Language)				
Geography				
German				
History				
Industrial Arts				
Italian				
Man in Soc./Soc.: Challenge & Change				
Mathematics				
Music - Instrumental				
Music - Vocal				
Native Studies				
Political Science				
Physical & Health Education				
Russian				
Science - General				
Science - Biology				
Science - Chemistry				
Science - Geology				
Science - Physics				
Spanish				
Technological Studies				
Visual Arts				

9. **Please indicate the number of full-time equivalent (FTE) teaching personnel working in the following divisions who are eligible to retire but are presently remaining in the Board's employ:**

P/J _____ I/S _____ Other_____ Total _____

10. **If the above information is available in regard to language of instruction (English or French), please provide:**

English P/J _____ I/S _____ Other _____ Total _____

French P/J _____ I/S _____ Other _____ Total _____

11. **Please indicate how many of your Board's full-time equivalent teaching personnel left employment with your Board for all other reasons than being eligible to retire (including death, leaving the Board for another position, early retirement, illness, etc.):**

Withdrawals or Resignations for Other Reasons by FTE

Year	P/J	I/S	Other	Total
1984				
1985				
1986				
1987				

12. **If the above information is available in regard to language instruction (English or French), please provide:**

Withdrawals or Resignations for Other Reasons by FTE - English & French

	P/J		I/S		Other		Total	
Year	Eng.	Fr.	Eng.	Fr.	Eng.	Fr.	Eng.	Fr.
1984								
1985								
1986								
1987								

13. For Intermediate/Senior, please indicate FTE withdrawals or resignations of full-time teaching personnel for other reasons by subject areas:

Subject Areas	1984	1985	1986	1987
Business Education - Accounting				
Business Education - Data Processing				
Business Education - Market. & Merch.				
Business Education - Secretarial				
Classic Studies - Greek				
Classic Studies - Latin				
Computer Science				
Dramatic Arts				
Economics				
English (First Language)				
English (Second Language)				
Environmental Science				
Family Studies				
French (Second Language)				
French (First Language)				
Geography				
German				
History				
Industrial Arts				
Italian				
Man in Soc./Soc.: Challenge & Change				
Mathematics				

Subject Areas	1984	1985	1986	1987
Music - Instrumental				
Music - Vocal				
Native Studies				
Political Science				
Physical & Health Education				
Russian				
Science - General				
Science - Biology				
Science - Chemistry				
Science - Geology				
Science - Physics				
Spanish				
Technological Studies				
Visual Arts				

14. Please indicate how many of your Board's full-time equivalent teaching personnel are projected to be eligible to retire and actually likely to retire over the next 15 years:

	Eligible to Retire by FTE				Likely to Retire by FTE			
Year	P/J	I/S	Other	Total	P/J	I/S	Other	Total
1988								
1989								
1990								
1991								
1992								
1993								
1994								
1995								
1996								
1997								
1998								
1999								
2000								
2001								
2002								
2003								

15. If the above information is available in regard to language of instruction (English or French), please provide:

	Eligible to Retire by FTE								Likely to Retire by FTE							
	P/J		I/S		Other		Total		P/J		I/S		Other		Total	
Year	Eng.	Fr.	Eng.	Fr.	Eng.	Fr.	Eng.	Fr.	Eng.	Fr.	Eng.	Fr.	Eng.	Fr.	Eng.	Fr.
1988																
1989																
1990																
1991																
1992																
1993																
1994																
1995																
1996																
1997																
1998																
1999																
2000																
2001																
2002																
2003																

16. Please indicate how many new full-time equivalent (FTE) teaching personnel your Board has hired to teach in the following divisions in the past four years:

New Hirings by FTE

Year	P/J	I/S	Other	Total
1984				
1985				
1986				
1987				

17. If the above information is available in regard to language of instruction (English or French), please provide:

New Full-Time Equivalent (FTE) Hirings - English and French

	P/J		I/S		Other		Total	
Year	Eng.	Fr.	Eng.	Fr.	Eng.	Fr.	Eng.	Fr.
1984								
1985								
1986								
1987								

18. For Intermediate/Senior, please indicate how many new full-time equivalent (FTE) teaching personnel your Board has hired in the past four years:

Subject Areas	1984	1985	1986	1987
Business Education - Accounting				
Business Education - Data Processing				

Subject Areas	1984	1985	1986	1987
Business Education - Market. & Merch.				
Business Education - Secretarial				
Classic Studies - Greek				
Classic Studies - Latin				
Computer Science				
Dramatic Arts				
Economics				
English (First Language)				
English (Second Language)				
Environmental Science				
Family Studies				
French (Second Language)				
French (First Language)				
Geography				
German				
History				
Industrial Arts				
Italian				
Man in Soc./Soc.: Challenge & Change				
Mathematics				
Music - Instrumental				
Music - Vocal				
Native Studies				

Subject Areas	1984	1985	1986	1987
Political Science				
Physical & Health Education				
Russian				
Science - General				
Science - Biology				
Science - Chemistry				
Science - Geology				
Science - Physics				
Spanish				
Technological Studies				
Visual Arts				

19. Please indicate what your Board projects as to how many <u>total new full-time equivalent</u> (FTE) teachers it is likely to appoint over the next 15 years to teach in each of the following divisions.

It should be emphasized that "total new full-time equivalent" teachers includes:

- teachers needed to be hired to meet the needs of new growth,
- teachers needed to be hired to replace retiring teachers,
- teachers needed to be hired to staff new program initiatives (e.g., junior kindergarten, increased preparation time, reduced primary division ratios, OSIS, etc.), and the like,
- in effect, <u>all new hirings of full-time equivalent (FTE) teaching personnel including classroom teachers, resource personnel, administrators, etc.</u>

Please fill in the chart on the following page indicating your projections based on whatever assumptions you feel are appropriate concerning teacher retirements, student enrolment, pupil-teacher ratios, geographic mobility, implications of OSIS, implications of Bill 30, etc.

Although these projections may be somewhat speculative, especially for the later years, you are being asked to provide your best estimates. Since these may be somewhat tentative, you are being provided with an opportunity to indicate your degree of confidence in your estimates for each year.

New Teaching Personnel Required by FTE

Year	Primary (JK-3)	Junior (4-6)	Intermediate (7-10)	Senior (11-OACs)	All Other Teaching Personnel (e.g., Administrators, Resource Personnel etc.)	Totals	Please Circle Degree of Confidence in Estimates
1988							H M L
1989							H M L
1990							H M L
1991							H M L
1992							H M L
1993							H M L
1994							H M L
1995							H M L
1996							H M L
1997							H M L
1998							H M L
1999							H M L
2000							H M L
2001							H M L
2002							H M L
2003							H M L

20. If the above information is available in regard to language of instruction (English or French), please provide:

New Teaching Personnel Required by FTE - English and French

Year	Primary (JK-3)		Junior (4-6)		Intermediate (7-10)		Senior (11-OACs)		All Other Teaching Personnel		Totals	
	Eng.	Fr.	Eng.	Fr.	Eng.	Fr.	Eng.	Fr.	Eng.	Fr.	Eng.	Fr.
1988												
1989												
1990												
1991												
1992												
1993												
1994												
1995												
1996												
1997												
1998												
1999												
2000												
2001												
2002												
2003												

21. **With regard to the Intermediate/Senior Divisions teaching subjects, if you have a more detailed breakdown of your needs for new <u>full-time equivalent</u> teachers by subject area, please provide it.**

Subject Areas	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Business Ed. - Accounting																
Business Ed. - Data Proc.																
Business Ed. - Market & Mer.																
Business Ed. - Secretarial																
Classic Studies - Greek																
Classic Studies - Latin																
Computer Science																
Dramatic Arts																
Economics																
English (First Language)																
English (Second Language)																
Environmental Science																
Family Studies																
French (Second Language)																
French (First Language)																

Subject Areas	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Geography																
German																
History																
Industrial Arts																
Italian																
Man in Soc./Soc. Chall. & Change																
Mathematics																
Music-Instrumen.																
Music-Vocal																
Native Studies																
Political Sci.																
Phys.&Health Ed.																
Russian																
Science-General																
Science-Biology																
Science-Chem.																
Science-Geology																
Science-Physics																
Spanish																
Tech. Studies																
Visual Arts																

22. Technological Studies

Please specify numbers and fields below for each year in which you anticipate a hiring.

1988: _____

1989: _____

1990: _____

1991: _____

1992: _____

1993: _____

1994: _____

1995: _____

1996: _____

1997: _____

1998: _____

1999: _____

2000: _____

2001: _____

2002: _____

2003: _____

23. In regard to all of the above projections, please indicate what particular assumptions underlie your various projections with regard to the following areas:

a) Student enrolment:

Are your projections based on expectations of any significant change in current patterns of student enrolment? If so, please indicate what:

_____

_____

_____

_____

_____

_____

If you have more detailed enrolment projections, please attach appropriate Board documents.

b) Teacher and Administrator Retirements:

Are your projections based on expectations of any significant change in current patterns of teacher and administrator retirements? If so, please indicate what:

_____

_____

_____

_____

_____

_____

If you have more detailed retirement projections, please attach relevant Board documents.

c) Pupil-Teacher Ratios:

Are your projections based on expectations of any significant changes in current patterns of pupil-teacher ratios? If so, please indicate what:

_____

_____

_____

_____

_____

_____

If you have more detailed pupil-teacher ratio projections, please attach relevant Board documents.

(i) Do your projections take into account the new Ministry guidelines re PTR for grades 1 and 2? If so, please indicate in what ways.

_____

_____

_____

_____

_____

_____

d) New Curriculum or Program Initiatives:
(e.g., starting or increasing junior kindergarten intake, starting or increasing French immersion classes)

Are your projections based on expectations of any significant new curriculum or program initiatives? If so, please indicate what:

_____

_____

e) Implications of OSIS:

Are your projections based on any significant changes arising out of the implementation of OSIS? If so, please indicate what:

f) Implications of Bill 30:

Are your projections based on any significant changes arising out of the implementation of Bill 30? If so, please indicate what:

g) Other Assumptions:

Please specify.

_____

_____

_____

_____

_____

_____

24. Do you anticipate any change in the need for or use of part-time teaching personnel over the next 15 years? If so, please indicate what:

_____

_____

_____

_____

_____

_____

25. Do you anticipate any change in the need for or use of supply/-occasional teaching personnel over the next 15 years? If so, please indicate what:

_____

_____

_____

_____

_____

_____

26. Do you anticipate any particular needs in Primary/Junior specialty areas such as Music, Physical Education, etc.? If so, please clarify.

27. Are there any other comments on the issue of teacher supply and demand that you would like to share?

Again, thank you for your co-operation.

Laverne Smith

Appendix B

UNIVERSITÉ
YORK
UNIVERSITY

FACULTY OF EDUCATION

4700 KEELE STREET• NORTH YORK • ONTARIO • CANADA • M3J 1P3

Sample cover letter to Deans of Education for survey of teacher education institutions

June 15, 1988

Dean David Marshall
Faculty of Education
Nipissing University College
Box 5002
North Bay, Ontario
P1B 8L7

Dear Dean Marshall:

The issue of the balance of the supply of and demand for teachers is emerging as a matter of vital concern to school boards, the government, the teachers' federation and affiliates, faculties of education, and other interested parties. Indeed, there appears to be a growing sense of impending crisis.

In order to address this concern, the Ministry of Education and the Ministry of Colleges and Universities have commissioned me to conduct a study of the need for teachers and to develop a plan for on-going information gathering on this vital issue.

As one of the first steps in this process, the attached survey, which is being sent to all the Deans of Education in Ontario, has been developed to gather information about your faculty's perceptions of its short and long term plans which affect the prospective supply of teachers.

I greatly appreciate your cooperation in having this important survey completed. I realize that completing this detailed survey will place an added burden on your staff, but I trust you share with me, with the Ministries, and with the profession as a whole a keen sense of the urgency and importance of ensuring an adequate supply of teachers. Under the circumstances, you may not be able to answer all questions in this questionnaire, but I would appreciate as much information as you can provide at this time.

...2

I would like to provide you with assurance on two points. First, any publication or dissemination of the results of this study will ensure the confidentiality of your faculty's response. Analyses will present aggregate or summary information which preserves the anonymity of the sources. Second, you will be provided with the results of this study as soon as it can be made public.

It is most important that your completed survey be returned by Friday, July 15, 1988. If there are any questions about the process or the survey, please do not hesitate to contact me at (416) 736-5003.

Once again, thank you for your help.

Yours sincerely.

Laverne Smith
Associate Dean & Associate Professor
Faculty of Education

LS:rc
Encl.

SURVEY OF FACULTIES OF EDUCATION

FOR
TEACHER SUPPLY AND DEMAND STUDY
MINISTRY OF EDUCATION AND MINISTRY OF COLLEGES AND UNIVERSITIES

Professor Laverne Smith
Faculty of Education
York University

June 1988

1. **Please indicate for which University you are responding:**

_____

2. **Please indicate:** (a) your name: _____

(b) your position: _____

(c) your phone number: _____

3. **For the current academic year and the past four years please indicate how many teacher candidates were graduated from your Faculty by June of each of these years:**

Graduates of Your Faculty

Consecutive Programme:

Year	P/J	J/I	I/S	Total
1984				
1985				
1986				
1987				
1988				

Concurrent Programme: (graduates only)

Year	P/J	J/I	I/S	Total
1984				
1985				
1986				
1987				
1988				

4. For the Junior/Intermediate and Intermediate/Senior panels, please provide a breakdown of the number of graduates in each subject area for these years.

Graduates by J/I and I/S Teaching Subjects

Subject Areas	1984		1985		1986		1987		1988	
	J/I	I/S	J/I	I/S	J/I	I/S	J/I	I/S	J/I	I/S
Business Education - Accounting										
Business Education - Data Processing										
Business Education - Market. & Merch.										
Business Education - Secretarial										
Classic Studies - Greek										
Classic Studies - Latin										
Computer Science										
Dramatic Arts										

Subject Areas	1984 J/I	1984 I/S	1985 J/I	1985 I/S	1986 J/I	1986 I/S	1987 J/I	1987 I/S	1988 J/I	1988 I/S
Economics										
English (First Lang.)										
English (Second Lang.)										
Environmental Science										
Family Studies										
French (Second Lang.)										
French (First Lang.)										
Geography										
German										
History										
Industrial Arts										
Italian										
Man in Society/Society: Challenge & Change										
Mathematics										
Music-Instrumental										
Music-Vocal										
Native Studies										
Political Science										
Physical & Health Ed.										
Russian										
Science-General										
Science-Biology										

Subject Areas	1984 J/I	1984 I/S	1985 J/I	1985 I/S	1986 J/I	1986 I/S	1987 J/I	1987 I/S	1988 J/I	1988 I/S
Science-Chemistry										
Science-Geology										
Science-Physics										
Spanish										
Technological Studies										
Visual Arts										

5. If the information in Question 3 is available by gender, please provide:

Male-Female Graduates of Your Faculty

Year	P/J Male	P/J Female	J/I Male	J/I Female	I/S Male	I/S Female	Total Male	Total Female
1984								
1985								
1986								
1987								
1988								

6. If this information is available by gender for the Junior/Intermediate and Intermediate/Senior teaching subjects, please provide:

Male-Female Graduates by J/I and I/S Teaching Subjects

Subject Areas		1984 J/I	1984 I/S	1985 J/I	1985 I/S	1986 J/I	1986 I/S	1987 J/I	1987 I/S	1988 J/I	1988 I/S
Business Education - Accounting	M										
	F										
Business Education - Data Proc.	M										
	F										
Business Education - Market & Merch.	M										
	F										
Business Education - Secretarial	M										
	F										
Classic Studies - Greek	M										
	F										
Classic Studies - Latin	M										
	F										
Computer Science	M										
	F										
Dramatic Arts	M										
	F										
Economics	M										
	F										
English (First Language)	M										
	F										
English (Second Language	M										
	F										
Environmental Science	M										
	F										
Family Studies	M										
	F										

Subject Areas		1984 J/I	1984 I/S	1985 J/I	1985 I/S	1986 J/I	1986 I/S	1987 J/I	1987 I/S	1988 J/I	1988 I/S
French (Second Language)	M										
	F										
French (First Language	M										
	F										
Geography	M										
	F										
German	M										
	F										
History	M										
	F										
Industrial Arts	M										
	F										
Italian	M										
	F										
Man in Soc./Soc.: Chall. & Change	M										
	F										
Mathematics	M										
	F										
Music-Instrumental	M										
	F										
Music-Vocal	M										
	F										
Native Studies	M										
	F										
Political Science	M										
	F										
Physical & Health Education	M										
	F										
Russian	M										
	F										

Subject Areas		1984 J/I	1984 I/S	1985 J/I	1985 I/S	1986 J/I	1986 I/S	1987 J/I	1987 I/S	1988 J/I	1988 I/S
Science-General	M										
	F										
Science-Biology	M										
	F										
Science-Chemistry	M										
	F										
Science-Geology	M										
	F										
Science-Physics	M										
	F										
Spanish	M										
	F										
Technological Studies	M										
	F										
Visual Arts	M										
	F										

7. Please indicate how many of your graduates were enrolled in the course which is preparatory for students interested in employment with Roman Catholic Separate School boards:

Consecutive Programme:

Year	P/J	J/I	I/S	Total
1984				
1985				
1986				
1987				
1988				

Concurrent Programme:

Year	P/J	J/I	I/S	Total
1984				
1985				
1986				
1987				
1988				

8. **Please indicate the number of students you anticipate graduating in the following years.**

Since some of this may be somewhat speculative, especially for the later years, you are being provided with an opportunity to indicate the degree of confidence in your estimates.

Year	P/J	J/I	I/S	Total	Please Circle Degree of Confidence in Estimates
1989					H M L
1990					H M L
1991					H M L
1992					H M L
1993					H M L
1994					H M L
1995					H M L
1996					H M L

Year	P/J	J/I	I/S	Total	Please Circle Degree of Confidence in Estimates High Medium Low
1997					H M L
1998					H M L
1999					H M L
2000					H M L
2001					H M L
2002					H M L
2003					H M L

9. For the Junior/Intermediate and Intermediate/Senior panels, please provide a breakdown by subject areas indicating the number of students you anticipate graduating for these years:

Subject Areas	1989 J/I	1989 I/S	1990 J/I	1990 I/S	1991 J/I	1991 I/S	1992 J/I	1992 I/S	1993 J/I	1993 I/S
Business Education - Accounting										
Business Education - Data Processing										
Business Education - Market. & Merch.										
Business Education - Secretarial										
Classic Studies - Greek										
Classic Studies - Latin										

Subject Areas	1989 J/I	1989 I/S	1990 J/I	1990 I/S	1991 J/I	1991 I/S	1992 J/I	1992 I/S	1993 J/I	1993 I/S
Computer Science										
Dramatic Arts										
Economics										
English (First Lang.)										
English (Second Lang.)										
Environmental Science										
Family Studies										
French (Second Lang.)										
French (First Lang.)										
Geography										
German										
History										
Industrial Arts										
Italian										
Man in Society/Society: Challenge & Change										
Mathematics										
Music-Instrumental										
Music-Vocal										
Native Studies										
Political Science										
Physical & Health Ed.										
Russian										

Subject Areas	1989 J/I	1989 I/S	1990 J/I	1990 I/S	1991 J/I	1991 I/S	1992 J/I	1992 I/S	1993 J/I	1993 I/S
Science-General										
Science-Biology										
Science-Chemistry										
Science-Geology										
Science-Physics										
Spanish										
Technological Studies										
Visual Arts										

10. Do you expect any changes in the current distribution of male and female students over the next 15 years? If so, please indicate what changes you expect and why?

_____

_____

_____

_____

11. Do you expect any changes in the number of students interested in working for separate school boards over the next 15 years? If so, please indicate what changes you expect and why?

_____

_____

_____

_____

12. What are your perceptions of whether or not there is an impending teacher shortage?

13. How have you formed these impressions?

14. Does your Faculty feel particular pressure to graduate teachers in any specific area or at any specific level?

15. What is your perception of the "lost generation of teachers" (that is, your graduates not hired during the recent teacher surplus)? To what extent are they still available for teaching positions?

16. How have you formed this impression (e.g., placement records, talking with graduates, etc.)?

_____

_____

_____

_____

17. Does your Faculty plan any special In-service offerings for graduating students in the Spring (e.g., additional basic qualifications, FSL, special education)?

_____

_____

_____

_____

18. If so, why?

_____

_____

_____

_____

19. How do you currently select pre-service candidates? Please check one or more of the following:

_____ grade point average

_____ written test

_____ letters of reference

_____ previous experience

_____ multicultural background

_____ personal interviews

_____ other _____ (please specify)

20. Do you expect any change in your selection process in the future?

_____ Yes _____ No

21. If so, what changes will you make and why?

_____

_____

_____

_____

22. Please give a general description of the composition of your pre-service candidates, including where possible comments on age, ethnicity, etc. (e.g., 90% white, Anglo-Saxon, female, 20-25 years old; 10% white, francophone, male, 30-35 years old). If you have both a consecutive and concurrent programme, please give a separate description for each.

_____

_____

_____

_____

23. Are you presently at or near the maximum capacity of your Faculty with regard to the number of candidates you graduate?

_____ Yes _____ No

24. Would it be possible to expand the number of candidates you graduate annually? If so, under what circumstances, and how quickly could you do so?

_____

_____

_____

_____

25. Please describe generally the expected retirements of your faculty up to 2003 (e.g., 50% of our 60 faculty members will retire by 1995, mainly in the elementary area).

_____

_____

_____

_____

26. I would appreciate your advice on any other issues related to teacher supply and demand and the role of the faculties of education which should be considered.

_____

_____

_____

_____

Again, thank you for your co-operation.

Laverne Smith

Appendix C

STUDY OF SOURCE OF TEACHER APPLICANTS FOR A SOUTH-CENTRAL ONTARIO BOARD OF EDUCATION

GENDER: Male _____ Female _____

LOCATION: Permanent address:

Province if not Ontario _____

City _____

SUBJECT OR DIVISION SPECIALITY: P _____

J _____

I _____

Other, please indicate _____

QUALIFICATIONS:

Teacher Training School or Faculty
Source of Teaching Certificate _____

Date: _____

CURRENT EMPLOYMENT STATUS:

Employed? Yes _____ No _____

If YES, position: _____

If NO, had candidate ever taught: Full-time _____ Supply _____

Indicate number of years of full-time experience: _____

Indicate number of years of supply experience: _____

Hired by Board: Yes _____ No _____

Appendix D

UNIVERSITÉ YORK UNIVERSITY

FACULTY OF EDUCATION

4700 KEELE STREET • NORTH YORK • ONTARIO • CANADA • M3J 1P3

Sample cover letter to Directors for follow-up survey of School Boards

September 23, 1988

Mr. M.J. Lewis
Director of Education
Atikokan Board of Education
110 Clark Street
Atikokan, Ontario
POT 1C0

Dear Mr. Lewis:

Further to my letter and questionnaire to you in May 1988 regarding the Ministry study which I am completing on Teacher Supply and Demand in Ontario, it would be much appreciated if I could obtain some further information. As with any previous information you have supplied, the publication or dissemination of results will ensure the confidentiality of your Board's response.

The attached questionnaire concerns information about your immediate staffing picture which I think is likely easily accessible at this point in the year.

For your information, I completed a confidential interim report for the Minister of Education and the Minister of Colleges and Universities in July. The final report will be submitted by October 31, 1988.

If you have any other information ranging from quantitative data to qualitative, anecdotal material which you would like me to consider including in the report, I would be very pleased to receive it.

Many thanks for your help and cooperation. It is my hope that the study will serve all of us well in the future.

Yours sincerely,

Laverne Smith
Associate Dean & Associate Professor
Faculty of Education

LS:rc
Encl.

cc: Superintendent of Personnel

QUESTIONNAIRE FOR TEACHER SUPPLY AND DEMAND STUDY

1. Please indicate the name of your Board _____

2. Please indicate your name _____

3. Has your Board experienced any difficulty with having sufficient numbers of qualified teachers to staff all of its classrooms this Fall? YES _____ NO _____

4. If YES, then please answer the following question to describe the extent of your shortage.

   Division or subject speciality of shortage:

	Division	Subject(s) if Applicable	Approx. no. of positions still not filled by qualified teachers
Primary			
Junior			
Intermediate			
Senior			
Other			

5. Do you have an adequate pool of qualified supply teachers?
   YES _____ NO _____

6. Other comments:

_____

_____

_____

_____

_____

Please return by **October 14, 1988** to Professor Laverne Smith, Associate Dean & Associate Professor, Faculty of Education, York University, 4700 Keele Street, North York, Ontario, M3J 1P3

Appendix E

UNIVERSITÉ
YORK
UNIVERSITY

FACULTY OF EDUCATION

4700 KEELE STREET • NORTH YORK • ONTARIO • CANADA • M3J 1P3

September 26, 1988

Dear Recent Graduate:

The issue of the balance of the supply of and demand for teachers is emerging as a matter of vital concern to school boards, the government, the teachers' federation and affiliates, faculties of education, and other interested parties. Indeed, there appears to be a growing sense of impending crisis.

In order to address this concern, the Ministry of Education and the Ministry of Colleges and Universities have commissioned me to conduct a study of the need for teachers and to develop a plan for on-going information gathering on this vital issue.

As one of the steps in this process, the enclosed card, which is being sent to all recent graduates of faculties, schools and colleges of education in Ontario, has been developed to gather information about your employment situation.

I greatly appreciate your cooperation in helping with this important study.

It is most important that your card be completed immediately and returned by Friday, October 14, 1988.

Once again, thank you for your help.

Yours sincerely.

Laverne Smith
Associate Dean & Associate Professor
Faculty of Education

LS:rc
Encl.

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York University
Faculty of Education
Room N815 Ross Building
4700 Keele Street
North York, Ontario
M3J 9Z9

Attention: Professor L. Smith

SURVEY OF RECENT GRADUATES
OF FACULTIES, SCHOOLS AND COLLEGES OF EDUCATION

CURRENT EMPLOYMENT STATUS:

Employed in education? Yes _____ No _____

If YES, position: _____

Type of employment: Full-time _____

Part-time _____

Supply _____

Other _____

If NO, did you seek employment in education for 1988-89?
Yes _____ No _____

If not now employed in education do you intend to seek employment in education in the near future? Yes _____ No _____

DIVISION OR SUBJECT SPECIALITY:

	Of Training	Of Employment
Primary	_____	_____
Junior	_____	_____
Intermediate	_____	_____
+ subject(s)	_____	_____
Senior	_____	_____
+ subject(s)	_____	_____
Other	_____	_____

LOCATION:

Province of employment _____

Board of employment _____